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J. Kost

J. Hest

DOMESTIC MEDICINE.

A TREATISE

ON THE

PRACTICE OF MEDICINE,

ADAPTED TO

THE REFORMED SYSTEM,

COMPRISING A

MATERIA MEDICA,

WITH NUMEROUS ILLUSTRATIONS.

BY J. KOST, M. D.,

Professor Materia Medica, Therapeutics and Botany in American Medical College, Cincinnati, O.; late Prof. Mat. Med. and Bot. in B. M. College of New England, and P. M. College of Ohio; ex-Prof. Mat. Med. and Ther. S. B. M. College of Macon, Ga.; Author "Elements of Materia Medica and Therapeutics;" "The Principles and Practice of Medicine;" First Vice-President E. Nat. Med. Association; Member of R. Med. Society of Ohio; Member of T. Med. Society of New York, etc.

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PUBLISHER'S NOTICE.

In an age of progress, when the arts and sciences, once confined to the few, have become subjects of general inquiry; when every thing in nature, above, below, around us is searched out, analyzed, combined, and applied to practical use, it is remarkable how little of interest is manifested in the important knowledge of our own physical organization, the laws of health, and those antidotes whereby disease may be counteracted. Immersed, it is true, in the various pursuits of daily life, it is not to be expected that every one should find opportunity for the attainment of a perfect acquaintance with all the complicated details of medical science; but, it by no means follows that the people at large should be in total ignorance on a subject bearing so closely on the comforts, activities and extension of human life. This is the more inexcusable, when the most prevalent forms of disease, and their best established and most appropriate remedies may be brought within the compass of a single volume, and made familiar to the ordinary reader.

Such is the merit claimed for "Kost's Domestic Medicine."

It may be urged, that works of a similar character are already before the public. This is not denied. But most of these publications are liable to objections. Many of these are old, written previous to the very great and important improvements of modern discoveries and practice; they are behind the age, and although not without merit, the remedies therein proposed have been superseded by those found to be safer and more efficacious: others, intended chiefly for the profession, are too abstruse and technical to be readily understood by the general reader, while nearly all the rest have been written by men totally incompetent to the task, whose bold assertions and absurd theories, unsustained by the facts of experience, or inductions of science, have entailed incalculable disappointment and mischief.

The work now offered to the public is free from all these objections. Based on a reformed system of medical treatment, and written in a style clear and perspicuous, adapted to the general reader, the high estimation in which it has been held by the profession, stamps it as a work of intrinsic merit, and recommends it to the confidence of the community.

It may be further added that the learned author after years of extensive and successful practice, and having filled the chair of professor in several of our colleges, has devoted his talents and given the results of his laborious researches in various publications for the especial use of the medical practitioner. In the work before us he has sought to bring the benefit of his labors to the hearth of every family. This work has gone through several editions in a very short space of time; it has already acquired a high celebrity among physicians in the United States and Canadas, and found its way to the libraries of Europe. It is already a text-book in many colleges and regarded as an authority for students. It is in course of translation into foreign languages, a German edition of which is already in the press and will appear shortly

PREFACE.

In preparing the following volume, the author had in view more especially the benefit of the people, and hence it appeared necessary to crowd in more subjects, and consequently to treat each more briefly, than would be desirable if the work were designed exclusively for the profession.

The part on Practice contains a larger list of diseases than is generally found in works of the kind; it has, therefore, been a constant object to avoid unnecessary details and useless comments, to make space for the more important matters, as the symptoms, diagnosis, prognosis, and special treatment of diseases. The subjects of *fever* and *inflammation*, as well as *cholera*, have been treated of at greater length than others, as the former are more important, and the latter more interesting at the present time while the disease is so prevalent. The plan of treatment is always elementary and thorough. When convenience could be consulted with safety this was considered desirable, but where danger might be involved the treatment is most prompt and thorough.

The *Materia Medica* is very judiciously arranged. All the articles are classified according to their Therapeutic properties and value. The virtues of each plant may be known at once by the class it occupies, and its comparative value, in most cases, by its position in point of priority.

The active principles of plants are generally pointed out and the method of preparation briefly noticed

Most of the more important medical plants are so well illustrated that it is supposed there will be little difficulty in recognizing them.

There has been much done to put the people in possession of a knowledge of the means of preserving their health,—many excellent treatises have been dedicated to them, and numerous journals and medical papers have been issued for their information, and it is gratifying to see how much good there has been done—how much suffering has been avoided and expense saved. Still there are some in the profession who are opposed to the plan of committing a knowledge of medicine to the people. They seem to think that it will lower the character and dignity of our profession, and that consequently our usefulness will be measurably destroyed. But the results are far otherwise. Real and important knowledge has no such tendency—it elevates rather than lowers the confidence and respect of its possessor.

It has been supposed too that mischiefs would result from an attempt on the part of the people to prescribe for themselves. But they ever have prescribed more or less for themselves, and it must be supposed that they ever will do so; and it is difficult to see how a knowledge to do *properly*, what will be done at *all events*, will give rise to mischief. Novelty is the food of fancy, and so long as any matter, the existence of which is known, remains in mystery, the human mind will never cease to pry into it. Let the mind once fully grasp a thing and its novelty is gone.

So far as responsibility and danger is concerned, the whole rests with the people at any rate. They form their own habits, whether they be conducive to health or otherwise—they select their own regimen, and when sick they take the responsibility upon themselves of determining upon what plan they will be treated, and accordingly send for a physician of their own choice Of his *skill* they judge for themselves — if they are *satisfied* the physician continues; if dissatisfied they take the responsibility of discharging him. If the medicine suits them they take it; if not, they refuse it. Thus the responsibility rests almost entirely upon them, and why should they not be informed upon this important subject?

One thing is remarkable in reference to safe medication,—that the people are in advance of the profession. They seem to be less heroic in the use of poisons than the latter, and when they prescribe for themselves they usually employ very simple and harmless agents, and hence occasion much less mischief than might be apprehended. They have an opportunity also of observing the peculiarities of their own habits, susceptibilities and necessities; and when informed on the subject of medicine as much as they are on other subjects generally, they will in many instances prescribe more successfully for themselves than physicians who have less chance to know their cases.

The author has thus attempted what he has considered a duty, and he must leave the consequences with the experiment. One thing, however, he must urge in extenuation of fault, if there be any here, — that he has labored much more in this way for the profession than he has for the people.

INTRODUCTION.

In presenting to the people a work contemplating the cure of all diseases by *safe remedies*, it may be proper to make some remarks upon the popular error that "*all substances are more or less poisonous!*" A misapprehension of the proper definition or meaning of the term *poison* alone could originate an error so *gross* and yet so *popular*. Medical authors commonly designate a poison to be any substance which, when introduced in any way to the system, will prove *hurtful*, or tend to do *injury*. This is true, but is not sufficiently definite, and leaves the subject open for controversy. The true meaning of the term *poison*, is any substance, which, when introduced, in any way, to the system, has an *intrinsic* tendency to prove *hurtful* or to do injury. The adjective *intrinsic* ends the controversy, for with this definition the attendant circumstances are not in question. It is always important to give words their *proper* meaning. If the idea of a poison does not refer to a property *intrinsically* possessed by the agent, we have no use for it at all, for, properly speaking, there could then no poison exist.

To illustrate this clearly, it is only necessary to advert to a few of the arguments of those who advocate the error that "*all things are more or less poisonous*."

They say that poisons are only *relative* agents — the relation is to the circumstances and extent of their use. Thus it is contended that even our food, which is most innocent in proper quantities, becomes poisonous in excessive portions; while on the other hand, the mos *virulent poisons*, when taken in sufficiently small quantities will be perfectly *innocent.*

But the absurdity of making the definition of a poison contingent upon extrinsic circumstances is apparent when it is seen that these must, on this principle, constitute mechanical agencies *poisons;* thus circumstances will make an axe, a knife, or any other instrument mischievous and destructive of life! Are then all these agents *poisons?* If the circumstances or excessive use make food or medicines poisonous, then the same must make the simple mechanical agents so.

Is it not plain here that the *circumstances* are the cause of the mischief, and not the *instrument?* It does not, therefore, argue, that because the circumstances make food or medicines mischievous that they are *poisonous!*

But it is said again that our food certainly *is* poisonous, because substances are prepared from it which *evidently* are so; *i. e.*, alcohol is made of grain, potatoes, fruits &c. Here is only another error; the alcohol does not exist in the grain, &c., as such — the latter only serve as materials to act on in generating the spirit, just as sugar is employed as a substance to act on in instituting the acetous fermentation to make vinegar; the vinegar was not in the sugar, and the latter was only used as an agent capable of fermentation.

The error which contemplates all poisons to be perfectly innocent when taken in sufficiently small doses, is alike obvious. This supposes that to alter or diminish the dose will really change the nature of the agent; *e. g.*, if you take a grain of mercury and divide it into two portions of a half grain each, according to this doctrine, then *it is no more mercury, but is something else!* This, in effect, is what such reasoning will lead to.

But, the reader will say again, three or four grains of arsenic are a *fatal dose*, while half a grain presents no other than a gentle *tonic* effect, and are we not therefore justified in the opinion that when the dose of any poisonous agent is diminished to a certain extent its poison ous nature is *destroyed?* The answer here is unequivocally in the *negative.* There is a conservative power in the living animal body which tends to resist or remove hurtful agents or mischievous influences, and whenever the offending cause is not too violent, the vital power will subvert or overcome it, so that its effects are not discovered: yet we know in all reason that although we cannot trace the effects of small portions of poisons, yet the poisonous power is nevertheless expended against the vital force; and it is just as reasonable to say that the sun does not shine after he sinks below our horizon, — since we cannot trace his direct effects, — as it is to say that a poison is not such when taken in quantities so small as that its effects are not appreciated by our external senses.

A poison proper, — that is, a substance which is *intrinsically* poisonous, — is most assuredly mischievous in any quantity, although the extent of its effects are modified by the quantity taken, and may in small portions be so slight as not to be detected. But still we may be assured that although we may not have any present demonstrations of the effects of small doses of poisons, owing to the resistance of nature, yet as "*continued dropping wears a stone,*" so will the constant, though sparing, use of some poisons ultimately ruin the constitution.

Some may still be dissatisfied with this definition of a poison, and may urge that the latter are not all such *intrinsically*, but are dependent, in some instances at least, upon extrinsic circumstances: thus carbonic acid gas is perfectly innocent when taken into the stomach, but when respired or taken into the lungs it is almost immediately fatal, and it is, moreover, supposed that even the poison of the rattlesnake is innocent in the stomach, while its fatal effects are well known when it is introduced into the circulation. The question may now be pressed, Do not the circumstances here alone make these agents poisonous, as they appear to have no bad effects when taken in one way, and are so very fatal when applied in another? It may, however, be answered here, that although the extrinsic circumstances may be indispensable to the development of the effects of the poison, yet they have nothing to do in forming their nature or inherent character. The carbonic acid gas, and the animal poison spoken of, are of the same nature, whether they be in the stomach, lungs, or blood, and the only difference is, that in one case they have not the chance to prove their nature or show their poisonous effects, while in the other they have.

It must, then, be admitted that any article which is perfectly innocent in its nature cannot be made poisonous by an increase of quantity or excess of dose. Mischief may, indeed, be done by the improper use of any agent, but then this mischief is not the effect of a *poison*: it is the result of *imprudence* or *error* — it is in the *conduct* or *verb*, and not in the *substantive*.

Another erroneous idea has been advanced, which it may be proper to notice here: it is contended by some that poisons act only in virtue of their power to over-*stimulate*, or stimulate in *excess*. This absurdity implies that all substances acting on the body are *stimulants*. It is true that the term *stimulant* is little more defined than that of *poisons*, and any one has the just right to employ the word to represent any effect which raises action of any kind in the body. But do all articles *raise* action? Are there no substances which specifically *depress* action? What must be thought of the long list of sedatives which are so much employed by old school physicians? Are they mock-remedies, introduced merely to deceive the profession, as well as the people? Prof. A. T. THOMPSON, of the University of London, says that "*sedatives are substances which directly depress the energy of the nervous system, diminishing motion in animal bodies without inducing previous excitement;*"* "and this they effect by depressing the nervous power, and by diminishing the energy of the brain and that of the spinal marrow." Prof. Dunglison, of Jefferson College, Philadelphia, says, "sedatives are medicines which directly depress the vital forces." This is about the doctrine maintained by all the most popular authors of Europe and America. But it is only necessary to observe the effects of some of the most deadly sedatives, as Cyanogen in its combination with Hydrogen — *Hydrocyanic acid;* Potassium — *Cyanide of Potassium;* and of Sulphur in its combinations with Hydrogen — *Sulphuretted Hydrogen, Sulphuret of Ammonia;* and of Carbon when combined with Oxygen in the form of *Carbonic Acid Gas;* or of some vegetable products, as Laurel, Bitter Almonds, the empyreumatic oil of Tobacco, &c.; and there can be no doubt of a direct and deadly depressing power.

A single drop of the anhydrous hydrocyanic acid will extinguish vitality in an instant. It is alike deadly to all animals from the worm to man, and is also little less destructive to vegetables. The author first quoted above says that it will "destroy the animal as instantaneously as the most powerful shock of an electric battery, or the stroke of lightning;" and by experimenting with the poison in a diluted state we find that this deadly power is absolutely of a sedative character When given in this way it prostrates the energy of the brain, spinal marrow and general nervous system, as is evinced in the sinking of the pulse, loss of sense and motion, and depression of the mental powers, stupor, and general prostration that supervene. It seems also that the contractility and irritability of the muscular fibre is destroyed in like manner.

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* Elements of Materia Medica and Therapeutics, London, 1835

DOMESTIC MEDICINE.

OF FEVER.—ITS GENERAL PATHOLOGY.

WHATEVER other objects of interest or importance may be found in the pathway of the medical inquirer, there is none in the province of pathology, that holds a higher claim to our careful, thorough, and candid investigation, than the subject of fever; and this holds good, whether we consider the subject in reference to its own intrinsic importance, or the fact that it is comparatively so little understood.

The history of all ages, proves it to have held the highest rank of all pathological questions. Hippocrates, Erasistratus, Asclepiades, Athenæus, Galen, and Avicenna, among the ancients, and Van Helmont, Stahl, Hoffman, Boerhaave, Cullen, Brown, and Broussais, among the moderns, have been the most prominent of the authors, who have founded their systems of medicine upon their views of fever.

The ancient Romans, who supposed that diseases were sent by their deities, as rewards for their follies, were accustomed ever to enter the Temple of Fanum in fear and awe, when they directed their supplications against *fever*.

Horace calls all the emanations from Pandora's box, simply *fevers*.

"If we except," says Van Swieten, "those who perish by a violent death, and such as are extinguished by mere old age, and which are indeed few, almost all the rest die either of fever, or of diseases accompanied with fever."

But, however important and labored this subject has been, still the true essence of fever, or, to speak more professionally, its etiology, has not been so satisfactorily ascertained, or so clearly demonstrated, as to meet the views of all. On this head, our countryman, Professor J. Eberle, very deploringly remarks: "The history of practical medicine, consists of little else than a review of the doctrines which have successively risen and sunk again, concerning the nature and treatment of fever. * * * From a retrospective glance over the history of our science, we are forced to acknowledge that there is, perhaps, no subject which is more eminently calculated to humble the pride of human reason, than this one. In relation to this subject, pathology has been in a continued state of revolution and instability. The human mind has been engaged with it for near three thousand years. Theories have risen and sunk again in a continued and rapid series of succession, each has had its hour to 'strut upon the stage,' and its votaries to yield it faith; but the stream of time has hitherto overturned all these unsubstantial, though often highly wrought fabrics."

Alas, the truth of these remarks are but too apparent! as will be perceived by a glance over the theories of the most prominent authors on medicine.

Thus the fate of genius in the past history, would now give but poor encouragement to enter upon the farther prosecution of this important, and seemingly, almost unfathomable subject, were it not that the human mind is so constituted, that our interest in any subject increases in the same ratio that its intricacy deepens.

But, it may be asked, has the mind made no real advancement in relation to the pathology of fever? Are our views now, no more correct and rational than were those of the ancients? and are we still destined to wander only in the dark mazes of speculation and hypothesis, on this important subject? Far from it; the human mind is continually verging toward truth, and few efforts are made on this subject, which do not contribute in some degree, to open the pathway to the great discovery: and however much error there may exist in any theory, there is generally some truth also; and as the former is unprofitable, it is generally rejected as soon as detected, while the latter is treasured up from one author to another, until our knowledge has now so advanced, that the honor of producing a perfect theory on this subject, cannot be claimed by any one individual.

What is fever? Like many other things that are at once obvious to our senses, and concerning the presence of which almost any one can readily decide, *fever* does not admit of a strictly correct and unobjectionable definition, as there is not a single one of its symptoms which is invariably present, and which can be considered as absolutely essential to its existence.* But the modification of the symptoms is only circumstantial, and the following may be considered among the most common indicating its presence: a sense of chilliness, attended by thirst, and which is succeeded first by hot flushes, and then a diffused heat throughout the body; quick, hard, and throbbing pulse; hurried respiration; obstruction of the secretions and excretions; headache, restlessness, soreness of the flesh, aching of the bones, husky dryness of the skin; sickness at the stomach, loss of appetite, and furred tongue.

The proximate cause of fever, as already hinted, has ever been an object of labored inquiry, and it would be gratifying if those labors had been equally well rewarded in the record of practical facts.

In the early ages of medicine, the proximate cause of fever was supposed to be found in the humors of the body. These were supposed to be either altered in their consistence, or obstructed and deranged in their circulation. But then it remained to be shown how these derangements were produced. It is easy to say that obstruction is the cause of fever, but this is only begging the question; what is the cause of the obstruction? If the obstruction is referred to the remote causes, then the former must be of a definite or identical character. This point has been assumed, and it has been variously claimed to be obstruction of the circulation and of the perspiration. But if this be the proximate cause, how are the most marked symptoms, as the *excessive heat*, the *increased activity of the circulation*, and the *chills*, produced?

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* Boerhaave collected together, from a great number of authors, all the symptoms which had been observed in fevers. He then struck from this list all those which do not appear in every form of fever, retaining such only, as, by the common admission of authors, and his own observations, were found to be present in all cases; and the consequence was, that only three symptoms were remaining, namely: a quick and frequent pulse, preternatural heat of the surface of the body, and a sense of cold and chilliness in the commencement; and it has been remarked that he might have gone further, and struck these also from his list.

The proximate cause must always account for the production of the symptoms, else it cannot be called the proximate cause.

Again, it has been claimed, in more modern times, that fever is simply an excessive vital action, and with this view, the sedatives and debilitants have been employed as its antidotes.

But if the proximate cause is excessive vital action, then the remote causes must be excessive stimuli, or a redundancy of the inherent vital principle, which latter supposes an absurdity; and if the former be the remote cause of fever, why is it that the fever is not discontinued on removing stimulating causes? and how could we explain the result of fever from strictly sedative causes, as cold, exhaustion, and sedative drugs? But these questions were not intended in this brief article, and the design of the work will by no means admit of a full disquisition of the many points of interest, that crowd upon us in the contemplation of this important subject. A few condensed remarks, comprising the author's own views of the pathology of fever, is all that can here be admitted.

To detect any cause of disease, we should always refer to the physiological state, in order that we may appreciate justly the extent of the pathological state; for disease, literally, is only a deviation from the standard of health.

The physiological functions are dependent, in part, upon *chemical* and *mechanical*, as well as *vital* laws; and as all laws are capable of *infringement*, these are all liable to be disturbed in the order of their institution.

It must be assumed, however, that the vital law maintains the supremacy, in the mutual influences of the several laws of our constitution. Then if it be further granted that the vital influence* is capable of modification in its manifestation, or in other words, that the integrity of the vital principle may be interrupted, or its energy diminished, it is easy to discover that other forces, which are in the order of our economy regulated by this principle, and which have a tendency to transcend the normal limits of their action, as they are less restrained, may evince their native tendencies according as the circumstances will admit.

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* As the terms *vital power*, *vital force*, *vital integrity*, &c., are frequently employed, it may be proper to qualify the sense in which

Thus the chemical laws which are subservient to the vital purposes, and are essential to digestion, calorification, metamorphosis, and most other vital functions, may nevertheless be a cause of mischief. The chemical action of oxygen upon the materials of the circulation, is the cause of the animal heat; but if the action of oxygen is not properly directed or sufficiently restrained by the vital power, as the circumstances may demand, this chemical action may become excessive, and thus a preternatural amount of heat will be produced; this heat is called *fever heat*.

The avidity with which oxygen combines with carbon and hydrogen, two of the chief constituents of the blood, is very great. Under certain circumstances the elements unite with a flame of fire, as is well known.

When venous or dark blood, rendered so by the presence of carbonic acid, is agitated with oxygen gas, it is changed into the vermilion-colored arterial blood, just as occurs in the process of common respiration. This is due to the absorption of oxygen by the blood, and

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they are used here, since there has been so much affected ridicule bestowed upon them. And first, it is here assumed that the employment of the terms, cannot justly render any one liable to the charge of supposing a superior intelligence or divinity in the living organism, as has been asserted.

That there are peculiar manifestations of a conservative power, no one can *dispute*, in the face of such an *array* of *facts* as crowd upon us; the inherent reparative processes are *positive* and *unmistakable*, even if the conservative power be denied. It does not matter whether this be called a *law of organized matter*, *physical instinct*, or whether it be called the *vital principle*. Nor does it matter, as to the fact of its existence, what its peculiar identity is, or what its existence may be more specially associated with. Whether it be the nervous power, electricity, or magnetism, it is not necessary here to decide. Nevertheless the conjecture may be ventured, that, in the superior animals, this power stands very nearly associated with the nervous system.

the escape of carbonic acid gas. The chemical combination of oxygen and carbon is always free and active, unless restrained by other forces; and the influence of the oxygen afforded by respiration, will thus always be excessive when the integrity of the laws regulating it (the vital laws) is impaired, or in other words, when the vital power is deficient.

The deficiency of vital resistance is, however, not necessarily of the *positive* kind, it may be comparative only, and this fact should be distinctly noted.*

It has been objected to former theories on fever, that the proximate cause does not account for all the essential phenomena involved. This objection, it is thought, is here obviated.

The proximate cause being referred here to the chemical action of oxygen, the same as our modern physiologists do in accounting for the production of animal heat,† and the proposition that more combustion produces more heat being self-evident, it remains only to be shown such excessive oxydation may take place, in the order of the animal economy.

In the first place, it may be observed that the vital economy is, to some extent, subject to all the physical influences with which we may be brought in contact, and but for the conservative power inherent to our living bodies, our physical organism would be the passive sport of the play of governing affinities of matter, as is eminently proven by the decay of our dead bodies.

But further, the vital protection is of a limited character. Our bodies are by no means protected from certain degrees of mechanical or chemical violence; we may be crushed to atoms, or be burnt to ashes.

While ever the functions of respiration and circulation are sustained, there is a liability to excessive oxydation and consequent fever, as there are so many remote causes which affect or modify the conservative power. All sedatives, exhaustion, deficient or improper nourishment, poisons, as malaria or miasmata, &c., are examples of these.

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* In the common combined and comparatively neutral state of the chemical agents, as we find them in the *atmosphere*, *water*, &c., oxygen, being already combined, is less forcible in its action upon the system; in order to its excessive action, therefore, a *positive* deficiency of the conservative force is necessary to the rise of fever; but when the chemical force is *free*, the full vital resistance is insufficient to prevent its influence. This must then be considered as deficient vital resistance, in the *comparative* degree.

† See Liebig's An. Chem., p. 17.

An interesting example of excessive oxydation, and of the invasion of fever without a positive deficiency of vital force, is found in the respiration of air more highly charged with oxygen, or of pure oxygen itself; and here we have a full illustration of the proximate cause and symptoms of fever, according to the theory here given.

When pure oxygen is respired, we soon discover the effects of a powerful excitant; the respiration, though at first natural, is soon increased and becomes excessively rapid, as in common synocha; the circulation is also quickened in a corresponding degree, until the pulse throbs with great violence; the general system is in a state of great excitement and heat, and manifests all the symptoms of common inflammatory fever. If the process is continued, the delirium gives place to a deep stupor, the vital power sinks, and death closes the scene.

The thirst, dryness of the mouth and skin, and the obstruction of the general secretions, together with all the other symptoms common to fever, are most clearly evinced in this case, proving beyond a doubt the part that oxygen takes in the production of fever.

The varieties of fever and their various grades of violence, are always dependent upon the remote causes, and upon the idiosyncrasy and habits of the patients. Thus an exposure to *marsh-miasmata*, is likely to result in intermittents and remittents; sudden exposures to cold and wet, are most likely to occasion inflammatory fever; and fatigue, and other long-continued depressing causes, give rise to continued fevers; while the specific remote causes or contagions, as those of scarletina, rubeola and variola, give rise to the fevers bearing their names. But still the proximate cause is the same in all, for the remote cause only opens the way for the former, and gives to it its distinctive character.

That theory which explains the greatest number of facts with the fewest assumptions, must ever be preferred; in this, the present has the advantage. It has already been stated that the preternatural oxydation, explains all the symptoms common to fever.

The premonitory symptoms of intermittents, remittents, and continued fevers, characterized by a sense of languor, listlessness, drowsiness, stupor, yawning stretching, and depression of spirits, which are so generally noticed by authors, could only be expected as legitimate consequences of a diminished state of the vital energies, brought on by the remote causes, as already stated.

The chill which succeeds or accompanies the state of languor, is dependent upon a morbid sensation of the nervous system, common to a want of vital integrity, as is illustrated by the sedative effects of cold. Cold, as is well known, has no inherent power to produce a shake as in ague; for we find that in such parts of the body where the nervous circulation is obstructed by ligatures, the peculiar effect here referred to does not take place. Many different sedative agents are capable of producing this sensation or effect upon the nerves. Thus the effects of the various passions, as joy, anger, grief, fear, &c., present the same phenomena, when the exciting power of the passion is over.

Intense pain, likewise, is capable of modifying sensation. Thus in the passage of biliary or urinary calculi, and the formation of pus, as well as in painful surgical operations, or even in toothache, we often find that the effect upon the nerves is the same, and the sense of chill, rigors, and even shakes, are produced.

It is certain that the sense of chill and the shake of ague, is not, in this instance, occasioned by cold, as we find the heat of the body is about the same as in the natural state. Nor will heating the body remove the chill. The author has frequently seen patients shake most violently in the vapor bath of the highest endurable temperature.* The excessive oxydation which is considered as the proximate cause of fever, and which we know, from the acknowledged laws of our constitution and the physical elements, must of necessity be liable to take place in this exposed condition of the system, is fully equal to the production of the hot stage of fever. The extra heat produced by the excessive chemical action of oxygen, excites an increased action of the heart and arteries, and by consequence, the respiration is quickened, and thus in turn an increased supply of oxygen is furnished, to raise more heat and fever.

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* The fact that tonics are better remedies for agues or chills than simple stimulants, goes far to establish the above position.

Irritation of the blood-vessels, and particularly of the arteries and capillaries, has ever been known to be attended by a corresponding sluggishness of glandular action; and on this principle the dryness of the skin and mouth, and the general obstruction of the secretions, is easily accounted for. Oxygen acts as an irritant and excitant, and when present in the circulation in a proper proportion, it is sufficient only to maintain the normal action of the heart and arteries; but when it is present in excessive quantity, it produces too much irritation, and thus arrests the action of the glandular organs.

The periodicity of action in intermittents and remittents, is dependent upon peculiarities of the remote cause—the *marsh-miasmata*—which suppresses rather than destroys the vital action, and thus, upon the intermission of its force, the recuperative powers are manifested in producing the apyrexia. It is highly probable, moreover, that the vital power, or *vis medicatrix naturæ*, may do much in breaking up the paroxysm of fever; a rallying of the vital energies at the time when the remote febrific cause ceases, (in virtue of its own peculiar mode of action,) may modify or discontinue its violence, and must doubtless be sufficient to produce the intermission.

The sweating stage of fever, is but the natural effect of the re-establishment of the functions of secretion. Perspiration is a secreted fluid, as is implied in the foregoing pages, and hence is dependent upon the *laws* of secretion. After the functions of the secretion in the skin have been obstructed for a while, and are then again restored to their normal, or perhaps, even an increased action, it is plain that so marked an evidence of their active state should be evinced, as we observe in the copious sweat that succeeds the hot stage of fever. It must moreover be supposed, that when the irritation of the blood-vessels is modified by the suspension of the remote cause of the fever, and the system becomes relaxed, such an effect as diaphoresis is favored by the momentum of the circulation, which continues for some time after the febrile excitement abates.

The critical discharges attending fevers, are the obvious results of the phenomena already explained. The precipitation in the urine, as an instance, is the effect of the chemical changes upon the substance of the tissues, by the oxygen,* and this process also occasions the emaciation. Hæmorrhages are produced by the arterial excitement. Diarrhœa is often incidental, but it may be accounted for as a critical discharge, on the same principle to which the increased activity of the cuticular emunctories is referred.

Thus it is evident that the *essence* of fever is not incompatible with the vital economy; nay, it is certain that it is identical with some of the most important phenomena of animal life. The *oxydation of the blood*, the *metamorphosis of the tissues*, &c., are indispensable to the physiological state. Fever is only mischievous, therefore, in the *extent of its developments*, and not in its essence.†

From the foregoing considerations, the remedies for fevers are very obvious. They should be directed to the support of nature or the vital force, and should consist of relaxants, proper evacuants, and tonics, together with various mechanical or hygienic means, as cold effusions, hot vapors, &c., according as the circumstances or different stages of the fever may indicate.

Those remedies which are exhibited on the principle that fever is an excess of vital action, should be avoided. Fever is excessive action, but not strictly *excessive vital action* — it is excessive *chemical* action.

This subject is already extended beyond the limits designed for it in the present work, and the reader is therefore referred, for further illustration of this theory, to the extended treatise on fever by the author, in his larger work on the principles and practice of medicine, designed for the profession.

For the various modifications and symptoms of fever, see the respective articles on the specific forms of fever, which immediately succeed.

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* It is equivalent to the ashes of common combustion.

† See what is said on this subject, in the article on inflammation.

INTERMITTENT FEVER.—(*Febris Intermittens.*)

AGUE.—FEVER AND AGUE.

Intermittent fever, as the name denotes, occurs in the form of successive paroxysms. These come on at various regular intervals, the length of which mark the distinctions in the forms of the disease: thus, when a paroxysm occurs as frequent as once in twenty-four hours, the intermittent is called *quotidian;* when it comes on every forty-eight hours, it is denominated *tertian,* which is the most common form of the disease; when the return is suspended for seventy-two hours, it is called *quartan.*

These are the most common forms in which the ague appears, but instances nevertheless occur, in which reduplications of these take place, as *double* and *triple tertians,* &c. The former of these may, however, be mistaken for quotidians, a paroxysm occurring every day, but varying in intensity, time of access, duration, &c., still every other paroxysm will be similar. The *triple tertian* is marked by the occurrence of two paroxysms every other day, and a single one on the intermediate day.

Very rare instances occur of the appearance of regular paroxysms at long intervals, as one or two weeks.

Symptoms.—The incipient or forming stage of an intermittent paroxysm, is attended with symptoms which do not differ much from those of other forms of fever. There is generally a sense of lassitude, frequent yawning and stretching, and an uncomfortable sense of weariness of the entire body, attended with slight pains, and aching in the loins and extremities.

*Cold Stage.**—Sooner or later, after the appearance of the foregoing symptoms, the patient begins to experience slight and transient sensations of cold, along the back; the nails and lips turn blue, and the skin pale.

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* Called so from the sensation, as from cold, which the subject experiences.

The chilly sensation now pervades the whole body; the patient becomes restless and irritable in his feelings; his ideas pass his mind unusually rapid, and being impatient, he crumps himself down in a chair, or goes to bed, shivering and shaking with the sensation of cold. The shaking or rigors, in some instances become so severe as to resemble convulsions, and not unfrequently alarm those unacquainted with this distressing complaint. During the chills, the sensibility of the surface becomes benumbed; the skin is unusually pale, shrunken and rough, presenting to the touch those small prominences that have given rise to the name *goose-skin*, which are caused by the prominence of the bulbs of the hair, owing to the departure or recession of the fluids from the skin. During the chills, as well as the following stage, the breathing is remarkably quick, and somewhat laborious, vomiting also occurs in many instances; the matter ejected is generally bilious and foul. The duration of this stage is variable, but usually lasts from fifteen minutes to one or two hours. The chills are not always as severe as above noticed, and it sometimes happens in some persons, that only a slight sense of coldness is felt. Small children seldom shake; they, however, exhibit marked signs of chilliness.

Hot Stage.—The cold stage is rapidly succeeded by the hot or feverish state, which is premonished by sickness at the stomach, thirst, and dryness of the tongue. As the sensation of cold subsides, the color of the skin changes, and becomes red; the countenance is flushed, tongue dry, and thirst intense. The pulse, which in the cold stage is contracted and weak, now becomes full, hard and frequent. The fever runs high, and is attended with intense headache, generally in the forehead. The temperature of the blood generally rises from two to four degrees Fahrenheit. The hot stage usually lasts considerably longer than the cold.

Sweating Stage.—This stage, which is commonly regarded as the effect of vital reaction, constitutes the last in the paroxysm. The perspiration appears first on the face and breast, but soon occurs on the entire body and is, in some instances, so considerable as to wet the clothes about the patient. The headache is now gone, and likewise the thirst; the pulse becomes softer and less frequent; the breathing easy and free, and the heat subsides rapidly. The urine, if voided now, is free, and deposits a pale red sediment, but in the preceding stage is scanty, and has no sediment. The perspiration continues until the patient is entirely free and comfortable, enjoying the condition of apyrexia, or convalescence.

Cause. — *Koino-miasmata*, or poisonous effluvia, arising from marshes and stagnant waters containing decaying vegetables, is the general remote cause of intermittent fever; nevertheless, instances of this disease have been said to occur from other causes, such as sudden suppression of accustomed evacuations, &c. The time necessary for the development of the disease, after the exposure, is generally from one day to two weeks. Dr. Macculloch has stated that it never takes more than twenty-four hours from the exposure; but he was most certainly mistaken in the matter.

Agues generally occur in autumn, and are most prevalent in warm and dry weather. The distance that this poison is carried by the atmosphere from the place whence it emanates, in quantities sufficient to bring on the disease, varies very much, as it is much governed by the direction of the wind, altitude of the ground, &c. But it is evidently, in some instances, carried several miles.

Intermittents are seldom fatal in their termination; but if badly managed, or suffered to run too long, they often bring on other diseases, such as dropsies, enlargements of the spleen and liver, dyspepsia, &c., which are sometimes difficult to cure. If the two first stages, or either of them, become milder or shorter in their duration; if the paroxysms come on at a later hour, or should miss occasionally altogether, and if the strength and appetite keep up good; or when a scabby eruption about the mouth and nose breaks out, and the natural discharges, suppressed by the ague, reappear, the signs are *favorable*. But if the duration of the cold and hot stages increases; and if the fever and headache should be very severe, especially if attended with delirium or coma; if the abdomen should grow tense, the tonsils swell up, or the urine become bloody; or should the intermittent change into a severe remittent, or typhus, the signs are *unfavorable*. But the latter seldom occur, except in warm countries, and as the result of bad treatment.

Treatment.—Tonics have proved to be the proper remedies for intermittent fever. But it must be observed, as the author has elsewhere stated, (see *Therapeutics*, page 401,) that all tonics are not efficient alike, in the cure of intermittents. Gentian, columba, and most other tonics in common use for simple debility, are far inferior to certain other articles of the same class of agents, as cinchona, cornus, euonymus, salix, &c.

It must be observed, moreover, that all diseases of periodic occurrence are very apt to relapse, after being arrested. Hence medicines employed for their cure must never be entirely discontinued, as soon as the symptoms disappear.

The question has been mooted whether evacuants may be safely omitted, while intermittents are treated with tonics. But experience has now cleared this point beyond cavil with many. The importance of evacuants is always dependent upon the state of the secretions. If these are much deranged, they are necessary. When there is nausea and oppression at the stomach, attended with loss of appetite and headache during the intervals of the paroxysms, an emetic, consisting of equal parts of sanguinaria and lobelia, should precede the tonic remedies.

The following formula gives one of the most simple and best compounds of the tonic class for agues:

℞ Quinine, }
Ext. Cornus Flor. (Alcoholic,) } Equal parts.

Let the extract be of proper consistence for pill-making, and make up the materials into pills of the usual size; give two of these three times a day, until the paroxysms cease, then give the following:

℞ Ext. Sanguinaria C. (Alcoholic,) }
Ext. Euonymus. " } Equal parts.

Make into pills, and give one every morning and evening for three days.

Should there be any signs of bilious derangement, a cathartic may now be given, composed of two parts of the alcoholic extract of apocynum A., and one of podophyllin, in the form of pills.

The use of the quinine pills should always be resumed in from three to six days after their first employment, to prevent a relapse, which is so common in all intermittent diseases. Three or four doses of the pills at this time, are sufficient to insure the cure; whereas, if this precaution were not observed, it would frequently be necessary afterward, to renew the entire treatment.

Convalescents from intermittent fever should avoid laborious exercise, as this is entirely incompatible with a sure recovery.

In the treatment of this as in many other diseases, we often find some eccentricities to prevail; occasionally there will a case occur, which will not yield to the usually successful remedies. Thus, after cinchona or all its preparations have failed, a single dose of the sanguinaria, eupatorium, podophyllum, aristolochia, aloes, or even black pepper, will prove successful.

The fact should never be overlooked, that astringents very much promote the power of simple tonics, in the cure of intermittents as well as other diseases.

REMITTENT FEVER.—(*Febris Remittens.*)

BILIOUS FEVER.

THIS form of periodical fever, is scarcely less common than the foregoing. It differs from it in being more violent in its attack, as well as in having its first and last stages less distinct, and its middle or hot stage of much longer continuance, so that the intermission or apyrexia is very short, and in some cases scarcely observable.

Symptoms.—In remittents we witness the usual premonitories of fever, a sense of languor or debility, and relaxation, attended with lassitude and peevishnesss, or irritableness of temper. Generally there is a remarkably increased sensitiveness to cold, and shortly before the febrile paroxysms set in, there is a distressing tenderness of the skin, so that the slightest touch causes pain; even combing the hair in a contrary direction, causes a feeling of soreness, as if the skin were blistered. At times, transient chills, alternated with slight flashes of heat, are experienced at this stage. These symptoms continue, longer or shorter, until finally the fever is fully established. The sufferings of the patient are now much enhanced by intense pains in the head, eyes, back, and limbs, particularly in the bones of the legs. There is also an intolerable soreness of the flesh, lasting for many days. The secretions and excretions (except the bile,) are checked, and hence the skin is dry, and the mouth and eyes also lack moisture; the urine is scanty, and the bowels costive. The bile is an impure alkaline product of combustion, corresponding to the ashes of common combustion in open fires, and is, in this fever, very abundant, being absorbed into the circulation and diffused throughout the entire system, staining the eyes and skin yellow. The tongue is covered with a thick brownish-yellow fur, and the thirst intolerable. There is, sometimes, considerable disturbance of the stomach, attended with nausea, and vomiting of bilious matter. A sense of fullness is also sometimes felt in the region of the stomach and liver. These symptoms, accompanied with a high fever, run on for a longer or shorter period, when they moderate down somewhat, or give way entirely, for a short time, to a slight perspiration. This remission generally occurs in the morning, and lasts only an hour or two, when another paroxysm, perhaps much more severe, sets in, which again yields, like the former, and thus the paroxysms continue to succeed one after another, until the disease ends in death, or is either overcome by the vital force, or removed by medicine, or perhaps yields to an intermittent, or typhus, according to the extent of vital resistance.

It is to be remarked that the above description only applies to the milder forms of remittents, and that the malignant character is much worse than this, in every way. Remittents sometimes seem to prevail as epidemics.

Marsh-miasma is considered the general remote cause of remittent as well as intermittent fever. Thus it is mostly confined to low grounds or marshy districts, and places bordering on sluggish streams. The disease is more common in southern latitudes, and occurs mostly in Autumn.

Remittent is distinguished from intermittent fever, by the longer duration of its paroxysms, and from all the varieties of continued fever by the remissions of this.

Among the favorable symptoms of remittent fever, may be considered: the protraction of the remissions, free perspiration, the free discharge of urine depositing a red or brownish sediment, and every sign of its change into an intermittent, the most prominent of which are, a comparative mildness of the symptoms every second day.

But should the strength of the patient fail rapidly, and the remissions grow shorter and less marked, and should the pulse sink and the patient incline to stupor or delirium, danger may justly be apprehended.

Treatment.—If we commence our treatment in the heat of a paroxysm, and the pulse is hard, full and quick, the first thing to be done for the comfort of the patient is to cool the surface, either by a cold shower bath, wet sheets, or sponging, as the strength of the patient, or other circumstances, may indicate. The effect of this will be admirable; if the patient be delirious this will compose him; and if restless and nervous, it will quiet him. The paroxysm is usually broken up by this means, and a free perspiration and refreshing sleep will often ensue. The bathing should be continued until the desired effect is produced. After the bath, the surface must be dried by a soft towel, and then rubbed briskly with coarse linen, or the flesh brush may be employed in its stead. An emetic composed of equal parts of lobelia and sanguinaria may now be given, and its operation promoted by liberal draughts of boneset tea.

If, after the operation of the emetic, the pulse be soft and, in the adult age, not over seventy-five or eighty to the minute, and the skin is moist, it may only be necessary to follow up by the use of some sudorific or diaphoretic drink, as the infusion of boneset, or the acetate of ammonia.

On the following day, a cathartic should be given:

℞ Podophillin, } Equal parts.
Ext. Eupatorium Per. }

Form into pills, and give two, three hours apart.

Should the fever set in again at any time after the cathartic has done its duty, the patient should be enveloped with a wet sheet, either cold or hot, according to the temperament of the patient — the sanguine and bilious temperaments requiring cold, while the nervous and lymphatic may indicate warm water for the purpose. The patient after being enveloped by the wet sheet, must be placed in bed and covered well with warm clothes, so as to promote perspiration. The latter may be favored also by means of sudorific drinks, or even by copious draughts of cold water.

If there be difficulty in procuring diaphoresis, a teaspoonful of the acetate of ammonia may be given once an hour, until the effect is produced, when it may be given in smaller and less frequent doses. Conjoined with, or in lieu of this, under doses of lobelia and the extract of eupatorium perfoliatum may be employed.

In difficult cases the emetic must be repeated, and the interium well supplied with relaxants and diaphoretics.

The bowels must be kept free by the use of the eupatorium extract.

As soon as an intermission is produced, and in cases where there is no delirium or tendency to congestion to the head, the best anti-intermittent tonics, as quinine, or the pills in the first formula recommended for intermittent fever, should be used in proper doses, say three to five grains three times per day.

When there is much headache or delirium, a mustard plaster applied to the ankles and nape of the neck, will be serviceable.

The pain in the extremities which often becomes intolerable, may be relieved by the following:

℞ Tincture of Lobelia, 4 oz.,
Oil Cajeput, ½ "
Oil Sassafras, ½ "

Shake well, and apply with the hand.

Some practitioners are in the habit of treating this fever by the free use of nauseants, composed principally of lobelia; others depend upon the vapor bath, in conjunction with emetics; while some again contend, that no treatment is so good as the tonic or quinine treatment, from the commencement. These several plans have their preference, only according as the circumstances or indications of the case may be. The tonics must never be discontinued, until the patient is well advanced in convalescence.

CONTINUED FEVER.—(*Febris Continua; Synochus.*)

SIMPLE CONTINUED FEVER.

The term *continued fever*, is only relative, as it is an occurrence remarkably rare, if indeed it ever happens, that a fever runs its entire course, without an intermission of some character. The name is therefore only given to distinguish those fevers which have no well marked intermissions or remissions, from those already described, which have such marked intervals of relief. To this class belong *synocha* or simple inflammatory fever, *synochus*, *typhus*, *typhoid*, and the *plague*. But it is thought best to treat all these separately, for there is no one of them that does not possess such peculiarities as are well calculated to distinguish them. It is therefore designed to treat synochus alone, under this head, as it best answers to the name; it likewise being that form of fever most generally known through the country, as *simple continued* fever.

This grade of fever, is that most generally met in common practice; it occurs in all seasons, climates and places, and among all classes of people.

Symptoms. — This, like some other forms of fever, admits of such a variety of modifications, that it is difficult to give such a history of the symptoms, as will enable those unacquainted with it, readily to recognize it in all its modifications. The affection is sometimes so slight, that medicine does not become necessary; and again, it occurs in a form so violent, that it admits of cure with difficulty. Before the fever rises, the patient generally complains of considerable debility; corporal and mental languor, which is succeeded by chills, that are soon attended alternately with flashes of heat, that continue until finally the fever sets in. In more aggravated cases, the fever is ushered in by a distinct cold stage, characterized by great lassitude, restlessness, a feeling of tension and confusion in the brain, oppressed and anxious breathing, feebleness and quickness of pulse, a clammy tongue, disgust for food, flatulency, frequent nausea, retching and vomiting. The fever now sets in; the pulse becomes full and frequent, about 112 to the minute; the face flushed, and the carotid and temporal arteries are observed to throb considerably. The patient suffers much from headache and thirst, and becomes very restless and peevish. The tongue is at first white, but soon becomes covered by a darkish-brown fur; the skin is hot and dry, the urine is generally high-colored and without sediment, the bowels are torpid, and the discharges assume a clay-colored appearance. Intolerance of light and sound is also complained of, even from the beginning, and now the patient is often delirious through the night, but is generally easier in the morning, when sometimes a little sleep is obtained.

These symptoms generally continue from six to ten days, with little variation, only that sometimes a short interval of ease is enjoyed in the morning. About this time a change may be looked for; the disease from this usually declines, or the patient either dies, or sinks into a low state from which recovery is doubtful.

Cause.—This fever is generally brought on by exposure to cold, and fatigue from hard labor, or other exercise. Any cause, in short, that is calculated to diminish suddenly the vital force, may bring on continued fever Sudden changes of the weather from hot to cold, the wearing of damp or wet clothes, cooling suddenly when in a perspiration, drinking copiously of cold water while the body is heated by exercise, intemperance, excessive venery, and violent passions, are all capable of bringing on the disease, but cold is by far the most fruitful cause.

By careful attention to the description of the symptoms, simple continued fever may generally be distinguished from all others; but as already hinted, the modifications of *this* grade of fever are quite various, and therefore, some difficulty in the diagnosis may sometimes be experienced. But happily the treatment of this, and those other forms of fever with which it is most likely to be confounded, varies but little.

Ordinary fevers of this kind, are not generally dangerous, but the more difficult cases need care.

If the strength of the patient keeps up well, and the skin, instead of remaining dry and husky, should occasionally break into a moisture, and should the tongue clean off from the centre, and the taste and appetite improve, the signs are good.

But should the patient sink rapidly, his breathing become hurried, the pupils of his eyes dilate, the pulse become small and sharp; and should the delirium increase, and subsultus set in, and the patient become imbecile, restless, dissatisfied of his state, and be constantly insisting to be removed, "*to go home*," as he expresses it; and especially should the evacuations become involuntary and the senses dull, much danger may justly be apprehended.

Treatment.—In mild cases of continued fever a good sweat, with herb teas, may be sufficient. But in more severe cases, when the fever is high and there is much pain in the head, and delirium, the patient should be treated with cold affusion or wet cloths, as recommended for remittent fever. The cold applications must first be made to the forehead, and, as soon as the head is cooled, to the entire body. The cloths must be renewed as often as they become dry, until the pulse softens and a perspiration sets in, when they may be removed, and the surface dried and rubbed by means of coarse towels. While the wet cloths are applied, the patient should take some diaphoretics, or sudorifics, to promote diaphoresis.

If the means here proposed do not produce diaphoresis, an emetic of lobelia, aided by an infusion of pennyroyal or some other diaphoretic drinks, must be given.

After the emetic has done its duty, and the stomach is composed, some suitable food — as corn gruel, porridge, or panada — may be taken, and, in an hour afterward, two pills, composed of equal parts of podophyllin, extract sanguinaria and capsicum, should be given. If these do not operate in six hours, give another of the same.

If the first emetic does not cleanse the stomach well, which may be known by the continued oppression and sense of uneasiness in this organ, as well as by the tainted or foul breath, dull headache, slimy appearance of the tongue and bad taste, another emetic, composed of lobelia and extract of bayberry, ten grains of each, must be given the following day. This precaution is the more necessary, as there is a great tendency in this fever to derangement of this organ, and while the stomach is in a bad state, it is almost impossible to effect an improvement in the symptoms.

In order to keep up a perspiration, the emetic should be followed up with the free use of the sudorific powders, or thoroughwort extract. The body and limbs should be well bathed with the rubefacient solution, or what is better, the bathing drops; and the bowels should be kept open, with the use of enemas, composed of an infusion of thoroughwort, adding mandrake root, and tincture of myrrh, a tea spoonful of each, to every injection.

The main object in the cure of all fevers, is to keep the stomach and bowels in good order, and the skin moist; and if this is done, all will be safe. As soon as the skin is well relaxed, and the excretions well restored, the use of tonics may be commenced, and perhaps the tonic powder, in tea spoonful doses, three times a day, will be as good as any other.

It should be remarked, that if there is any subsultus tendinum or muscular twitching, the nervine tonic must be used. If the skin is not too much bound or contracted, the diaphoretic powders may be employed alternately with the sudorific powders.

If at any time through the treatment, it should become difficult to keep the surface moist, the vapor bath must be used, and the emetic repeated, if necessary.

The diet should be spare and well regulated.

INFLAMMATORY FEVER.—(*Synocha.*)

THIS variety of fever, in contradistinction to others, is denominated *inflammatory*, as it is characterized by the highest grade of febrile excitement. It rises suddenly, with great irritation and vascular action, and furnishes the best example for the illustration of the theory of fever given in this work.

Symptoms.—The fever sometimes rises suddenly, without the usual premonitories that precede other fevers; but generally there is a sense of chilliness, attended with lassitude, and some signs of debility. The premonitory stage is always short, and followed by a diffused heat of the body and headache, often attended with delirium. The pulse is full and vigorous, and about one hundred and twelve to the minute. The face becomes flushed and turgid; the eyes suffused, sparkling, and unusually sensitive to the light; the temples and carotids throb; the breathing is hurried but laborious; the mouth and throat very dry, and the thirst for cold water intolerable. The skin is very hot, dry, harsh, and suffused with a blush. The tongue is covered with a white fur in the centre, and presents a red margin. Sometimes there is a humming noise in the ears, and there is always a sensitiveness to harsh sounds and noise. The bowels are torpid, and the urine scanty and high-colored.

Inflammatory fever, though strictly of a continued character, is nevertheless characterized by occasional modifications of its symptoms. The patient generally feels better in the morning, and worse in the evening and fore part of the night.

Inflammatory fever is usually of short continuance, when compared to others, seldom running over nine days, and often only five or six, when it terminates under some critical evacuations, as perspiration, or the free discharge of urine with a lateritious sediment.

Persons of a sanguine temperament are most liable to this fever; and those with a rugged constitution, when attacked, suffer most with it, as with these the fever generally runs higher, and the tendency to delirium is greater.

Causes. — Atmospheric vicissitudes, high solar heat, ardent spirits, hard labor, especially when performed in hot weather, copious draughts of cold water when the body is heated by exercise, violent passions, mechanical injuries, etc., are among the most fruitful causes of inflammatory fever. But cold stands pre-eminent in the list of causes, and hence it is that during the winter season, or more especially in the changeable months of spring and autumn, the disease is so apt to occur.

Treatment. — Cold water is one of the most important means in the treatment of this fever.

In mild cases, it may be sufficient to apply cloths wet with cold or ice-water to the forehead and temples, and renewing them as they become warm, and wetting the hair and sponging the body with cold soft water. In more severe cases, however, the entire body should be enveloped in cold wet sheets, which must be renewed as often as they get warm, until the heat is abated and the pulse is moderated. During this part of the process the covering should be light, but as soon as the fever subsides more clothes must be put on, so as to promote perspiration. After the patient has lain one or two hours in a perspiration, the wet clothes may be removed and the body rubbed with dry towels, and then supplied with other clothes. Cold water may be freely drank by the patient throughout the treatment, but especially during the foregoing part. Diaphoretic herb teas may be taken, likewise, with good effect.

It is important that the head should be kept cool by wetting the hair, and placing cold wet cloths upon the forehead and temples, and renewing them frequently; as when this precaution is not observed, during the application of the wet sheets to the other parts of the body, congestions to the head may take place when the fever is high.

The author has, in many instances, succeeded in breaking up violent attacks of this fever in children by means of a single shower bath, continued until a complete chill is produced, and then, after wiping dry, placing the little patient in a warm bed, to sweat for an hour or two, when he would be well, and get up without any return of fever.

When the foregoing treatment proves insufficient, it will become necessary to exhibit an emetic of lobelia, after the cold applications are discontinued, and while the means for exciting perspiration are instituted; and if a single emetic, followed by diaphoretics or sudorifics, does not accomplish a satisfactory effect, some active cathartic pills may be taken, and their operation promoted by drinking freely of an infusion of thorough wort or sweet alder bark.

Blood-letting, which is generally practiced by physicians on the old plan, is unnecessary, as the purpose for which this means is employed is much better effected by the use of lobelia in under doses. This article will soften down the pulse, and obviate congestion with remarkable promptitude.

Cold affusions, emetics, nauseants, diaphoretics, and cathartics, are our chief agents in the treatment of inflammatory fever, and if promptly used will almost always be successful.

Astringents and active stimulants, as capsicum, are improper remedies in this form of fever, especially when the skin is dry and the fever high. The common diaphoretic or composition powders, therefore, should not be indiscriminately used, as is the practice with some.

Sinapisms, applied to the extremities and nape of the neck, will be serviceable in relieving the head, when there is much pain or delirium. It is not necessary that they should remain long enough to cause blistering.

Tonics may be necessary when the fever has continued long and the patient is debilitated. The time for their employment is after the fever is broken up. They will promote the appetite and improve the strength of the patient.

The food should be light and easy of digestion.

TYPHUS FEVER.—(*Febris Typhoides.*)

It is difficult to define typhus fever in the present unsettled state of its pathology. By some, all low fevers are called typhus; others define typhus so as to comprise all low fevers which are accompanied by stupor and delirium; while many regard it to be a specific, well defined, *contagious* disease.

Typhus fever, as now recognized by the most popular authors, is a distinct idiopathic disease, commencing like synochus, and then passing into a low state, which is characterized by a torpid condition of the sensorial powers, with delirium, and great prostration of strength.

Symptoms—(*Premonitory Stage.*)—"A peculiar uneasy sensation in the pit of the stomach; want of appetite; slight giddiness and nausea; pale, shrunk, and dejected countenance; dull and heavy eyes; often tremor of the hands; and a general feeling of weariness, debility, and disinclination to mental and corporal action. These premonitory symptoms usually continue from three to six days, terminating in those which mark the stage of *invasion*,—viz: slight chills, alternating with flushes of heat; an entire disgust for every kind of food; tongue covered with a thick, whitish fur; considerable nausea, and sometimes vomiting; a quick, small, and irregular pulse; a confused and heavy sensation in the head, and increased mental and physical depression. This stage generally occupies from six to twelve hours, and terminates in the stage of *excitement*. The febrile heat now increases considerably; the face is slightly flushed; the pulse rises in strength and fullness; the skin becomes dry, and the lips parched; there is a considerable thirst for cool drinks; the tongue becomes more furred and slimy; the bowels are usually torpid; the mind is more confused; the patient fretful, restless and watchful, with an anxious expression of the countenance; the urine is small in quantity, and reddish; the head feels heavy, much confused, and vertiginous; during the first two days of this stage, occasional manifestations of slight delirium occur during the night. About the end of the second or during the third day of this stage, slight catarrhal symptoms usually supervene, such as suffused and injected eyes, moderately inflamed fauces, somewhat painful deglutition, more or less oppression in the chest attended generally with a short, dry cough. There is often some tension and tenderness in the hypochondrium, especially the right one.

"Pains in the back, loins, and extremities, are rarely absent in this stage, and in most cases a general soreness is experienced throughout the whole body. Toward the close of the third day of the stage of excitement, there is usually much giddiness and sensorial obtuseness [dullness] present; the patient appearing, even at this early period of the disease, as if under the influence of some narcotic. The cerebral functions now become more and more disturbed, hearing becomes obtuse, delirium more frequent and considerable, and the general torpor gradually increases. Hildebrand asserts that a peculiar milliary exanthema [eruption] occurs on the surface about the fourth day of this stage, which he considers essential to the perfect and regular development of the disease. The same observation is made by Hartman. One of the most striking characteristic phenomena in typhus, is the almost insurmountable aversion to corporeal and intellectual exertion manifested throughout nearly the whole course of the disease. The patient moves slowly, and seemingly with great reluctance, and his answers to questions are hesitating, short and peevish. The stage of excitement generally continues about six or seven days, before it terminates in the stage of *collapse*, though this *sinking* stage sometimes supervenes at a much earlier period and occasionally comes on a few days later." — (*Eberle.*)

The patient now becomes very feeble and prostrated. The tongue is thickly covered with a brown and, finally, black coat; the teeth incrusted with black sordes: there is, generally, much subsultus tendinum or twitching of the muscles. There is, also, a very peculiar biting heat of the skin, and sometimes the latter turns purple or black in spots. The discharges from the bowels, which often become thin and watery, are exceedingly offensive; and as the disease advances, the patient becomes indifferent to all surrounding objects; will not often even notice his most intimate friends whom he may not have seen for a long time; when spoken to, his answers are short and unintelligent, and are generally ended with a low, muttering delirium. The voice becomes peculiarly strange and sepulchral. As the patient gets lower, the coma or stupor becomes more constant and complete, and it is now with difficulty that the patient is aroused at all; and even when he is made to speak, it will only be a word or two, when he will again fall back into a deep state of stupor. The easiest time the patient has, is, generally, in the morning. Before dissolution, the poor sufferer usually experiences a respite, lasting longer or shorter, but generally several hours, in which he possesses his senses and mental faculties nearly as well as in health. This is certainly a great blessing; the dying man may know his danger, and his friends and relatives may enjoy the great satisfaction of conversing with a friend whom they shall shortly see no more on earth. This relief is well calculated to deceive many, who are flattered thereby to expect a speedy recovery, whereas it is only the precursor of death. After this respite, the patient again sinks rapidly into the former condition, and continues growing worse until he dies.

Cause.—The cause of typhus fever is by some referred entirely to a specific contagion, and it is obvious that under some circumstances it may be communicated in this way. In densely populated cities, where the air must of necessity be more or less contaminated with putrid effluvia arising from the decomposition of animal matter; and in camps, hospitals, jails, and in the miserable hovels of some of the poor where due cleanliness is not observed, this disease is always found to be much more prevalent. It is stated, that during the campaigns of the French against Russia, the typhus contagion, which was generated in the hospitals and houses crowded with prisoners and the sick, was communicated to the inhabitants along the road by which the soldiers returned; and that the disease from this, afterward, spread gradually into the adjacent districts, until it became very common. The route of the army, returning from Poland through Germany, could be readily traced by the desolating train of the disease that followed.

The difference between the malaria that generate typhus and remittent or intermittent fevers, is, that the latter arises from the decomposition of vegetables, while the former is caused by the decomposition of animal matter. But whatever the character of the contagion may be, it is certain that unless there be a want of vital resistance, which thus subjects the system to its influence, those exposed to the contagion will pass with impunity. Every cause of debility, such as blood-letting, the use of poisonous minerals, drastic purges, cold, fatigue, &c., must be carefully avoided. The prevalence of the disease is much enhanced by a certain train of circumstances that are generally to be witnessed in all families which this disease has invaded. Such is the dread entertained for it, that as soon as a member of a family is taken down with it, *all hearts fail*, despondency impairs the conservative power, the appetite declines, sleep flees away, and a permanent debility sets in. This state of things illy qualifies persons to go through the hardships and fatigues brought upon the friends of the sick, by their solicitude and anxiety. If now the chamber or sick room is neglected, and not sufficiently ventilated and cleansed, those thus exposed are almost certain to contract the affection. But all this need not happen, if proper precaution be observed and it is remembered that collateral circumstances alone make this disease contagious.

Abatement of the heat and thirst, moisture of the surface, and cleansing of the tongue, but especially the subsidence of the delirium and stupor, may be regarded as favorable symptoms.

The unfavorable symptoms are,—violent delirium, unusually small intermitting and fluttering pulse, loss of vision, difficulty of deglutition or swallowing, involuntary stools and urine, distortion of the muscles of the face, unusual staring, and change of the countenance, &c.

Treatment.—In the very onset, the patient should be carried through a course of the vapor bath and lobelia emetic, which is to be followed with a dose of the anti-bilious pills; during the operation of the emetic, as well as the pills, the strength of the patient should be sustained by nourishing broths or porridge. The baths and emetics must be repeated, if the symptoms do not yield to the other means that may be employed. From the commencement, capsicum should be freely and perseveringly employed, both internally and externally; and the compound tincture of myrrh should be occasionally used. Enemas, composed of an infusion of the astringent tonic and as much compound tincture of *myrrh* as the patient can bear, should be administered three or four times in the course of twenty-four hours. But should the bowels not be kept open by these means, this end must be accomplished by an occasional dose of rhubarb; for if the bowels are not protected from morbid accumulation, the delirium and danger will always be greater. But the precaution not to use any unnecessary physic or any other means calculated to reduce the strength of the patient rapidly, is very important. The nervine tonic should be freely used to calm the nervous system.

Common pepper sauce is a very good article to be used in typhus fever; and when there are strong symptoms of putridity, charcoal, properly prepared, should be freely given; for this purpose, yeast is also highly recommended by some.

Frictions and Rubefacients.—There is no disease in which these means are more important, than in typhus fever. The surface should be frequently washed off by the use of the *rubefacient wash*, and afterward well bathed with *bathing drops;* but should they not prove sufficiently active, the rubefacient oil must be used.

Ventilation.—Great care should be taken to keep the patient's room well ventilated, and a vessel containing some chlorinated lime should be kept in the room.

Tonics.—The use of active tonics, in this complaint, is very important. Quinine, dogwood, columba, or any other good tonic, should be early used. The diet, also, must be nourishing and well regulated.

TYPHOID FEVER.—(*Dothinenteria.*)

This affection, as already noticed, has generally been confounded with typhus fever, and the English physicians are still reluctant about admitting typhoid fever as worthy of consideration, separate from typhus. But in our country and France, it is pretty generally recognized as a different affection. The disease, anatomically considered, seems more particularly to implicate the bowels and brain. Post mortem examinations have discovered extensive affections of the mucous membrane of the lower part of the small, and upper part of the large intestines, and particularly the glands of Peyer, and sometimes those of Brunner, (so named after their discoverers.) Opposite those patches, the glands of the mesentery are in a diseased and enlarged state. The spleen, moreover, in nearly all cases, is softened and enlarged; in some cases, it is found four or five times its natural size.

Symptoms.—The symptoms of typhoid fever are, most of them, nearly the same as typhus. Those of the first four or five days, need not here be repeated, as they can seldom, in the main, be distinguished from those attending typhus in the corresponding stage. About this time, or perhaps sooner, a diarrhœa sets in, which is an almost constant attendant, and about the sixth day a peculiar eruption breaks out over the breast and abdomen, called *rose patches*. The bowels bloat considerably, and the abdomen becomes tense, and the spleen often swells so as to be distinctly felt externally under the edge of the ribs. Like typhus, this fever is characterized by great stupor, and generally, more or less delirium. The tongue is usually much coated, dry, and glossy along the edges, often cracked and bleeding; the countenance is red or purplish, and suffused; the expression sunken, vacant, or wild, and spasms of the lips and muscles of the jaws, are not unfrequent. The pulse, which at first is not generally much accelerated, in the more advanced stage grows more frequent and tense. Bleeding at the nose, and from the bowels, is not unfrequently an attendant. Typhoid fever is not generally considered contagious.

Cause.— Among the various agents that give rise to this affection, might be named all those that produce typhus, excepting the contagion. It would seem that in connection with the common febrific agencies of this affection, there is found a collateral or concurrent one, that determines the morbid influence to the bowels and inferior glands. Now the cause of typhoid fever is well illustrated, if a profile of the common causes of continued fevers, and those of dysenteries, are viewed together; and as typhoid affections are generally the most prevalent in the same season in which dysenteries are most common, this view of the matter is entitled to much credit.

Typhoid fever may be distinguished from typhus, by the diarrhœa, headache, bloated condition of the bowels, rose spots, and the enlargement of the spleen, common to this.

The crisis of this disease seldom forms in less than three, and sometimes not under five weeks.

Among the favorable signs may be reckoned, the subsidence of the stupor and headache, return of memory, free perspiration, copious discharge of urine, and natural appearance of the stools.

But it is always discouraging to see the delirium and headache continue, the pulse frequent and low, purple cheeks, involuntary discharges in bed, retention of urine, irregular breathing, rigidity of the muscles, convulsive movements, cold extremities with the nails turning to a purplish-black, loss of vision and hearing, and distortions of the countenance.

Treatment.—In this disease, the first object to be accomplished, is to get up an action in the surface; this may be done in the following way: apply the vapor bath until the patient perspires freely, then wipe off and apply the *rubefacient oil* or *bathing drops*, after this a good dose of the neutralizing mixture should be given, and followed up with additional doses, every hour or two, until the bowels are well cleansed. This will carry off an astonishing amount of filth from the bowels. If the patient is not relieved by this, he must have another course of the vapor, and as soon as through with this, he should have a dose of lobelia, to be repeated every ten or fifteen minutes, until copious vomiting is produced, which must be followed up with the free use of the sudorific, diaphoretic, or Thomson's composition powders. The use of the syringe must not be neglected in this affection, as the bowels need the application of the infusion of astringent tonics, with a little of Thomson's No. 6, in it. The bowels should be kept open with the use of the *neutralizing* mixture, administered every other day, in doses large enough to move them. Howard's cholera syrup is excellent in this disease, and may be freely used when the bowels are cleansed. To insure success in the treatment, the skin must be kept moist constantly, by the use of diaphoretics and liniments, or other appropriate means. The nervine tonic, should there be much nervous irritation, must be used in proper doses several times a day, to calm the nervous system, and the use of the bitter tonics must be early instituted. Fomentations applied externally, are sometimes of signal benefit to the bowels.

Diet.—The diet should be light and nourishing, but must always be used in moderate quantities. Overeating in this disease, is always attended by serious consequences. Slippery elm water affords a very good drink.

YELLOW FEVER. — (*Febris Icterodes.*)

This is a disease common to warm climates, raging more in the tropics than elsewhere, especially in the West Indies. But in warm seasons it has been known to visit with violence, places as far north as Boston, Massachusetts. Medical men are much divided in relation to the cause and character of this form of fever. Some consider it a species of the indigenous remittent fever of this country, and that it is brought on by the same general cause; while others consider it a distinct disease, which is propagated by a specific contagion. that originated in the East Indies, and from thence conveyed to the West Indies, and thence to the continent of North America. Sauvages says, that it was imported into Martinique in the year 1686, from Siam, by a ship called Oriflame. It first appeared in this country in the autumn of 1699,* in Philadelphia, and it is stated that it appeared the same season in Charleston, South Carolina. In 1702 it occurred in New York, and in 1703 it reappeared in Charleston, and it appears from Dr. Lining, that it also prevailed in this city, in the years 1732, 1739, 1745, and 1748; and from Dr. Harris, it would seem that it was again known there in 1792, but perhaps he means 1794. It is certain, however, that it had appeared there also in 1761. It reappeared in Philadelphia in the year 1741, and prevailed also in 1747 and 1762. It also reappeared in New York in 1748, after which it was not known again in this country until the year 1793, when it prevailed again in Philadelphia with dreadful mortality, and the following year Charleston was again visited. New York suffered from it again, the year after it occurred this time at Charleston, since which time it has been of very frequent occurrence in those, as well as many other places on the sea-coast, from Maine to Louisiana, and indeed, not only on the sea-coast, but far in the interior of some of the Southern states.

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* It appears, however, from Hutchinson's History of New England, that a fever similar in character, was imported into Boston, from Martinique, by the fleet of Sir Francis Wheeler, in the year 1693.

Symptoms.—Yellow fever usually commences suddenly, with a sense of giddiness and headache, accompanied by chills, shivering, and pain in the limbs and back. This is succeeded, generally, in from a few to twelve hours, by the fever, which is marked by a flushed countenance, red eyes, extreme headache, great thirst, and throbbing of the arteries. The tongue, though sometimes clean, is generally a little coated with white; there is usually a want of appetite,* and a sensation of weight and oppression, and not unfrequently, pain at the stomach; and in the course of twelve to twenty-four hours after the fever sets in, the patient becomes harassed with distressing nausea and vomiting, which is aggravated by drinks. The matter thrown up, consists at first of such fluids as are drank, but this is often followed by a considerable bilious matter, very acrid to the taste. The violence of the fever now increases, the patient becomes restless and anxious, "the countenance assumes an indescribable expression of distress and hopelessness." These symptoms generally increase for thirty-six hours, and then give way or decrease for a similar length of time, when the patient either recovers, or enjoys a short respite or remission, only to prepare for another attack of still greater severity than the first paroxysm. The poor sufferer in a few hours becomes distressed with a severe burning and painful sensation at the stomach, accompanied with almost constant sickness and straining to vomit; the matter thrown up at this stage, consists of a greenish watery mass, of the consistence of mucilage, containing many minute flakes floating through it. The thirst for cold water is intense, but all drinks serve only to aggravate the nausea and vomiting. The eyes are yellow, and the skin about the neck and breast also become considerably stained by the diffusion of bile. At this period also, sometimes the yellow appearance extends over the body and limbs, forming a dirty yellow color of the entire body, whence the name of the disease; but if this diffusion into the capillaries does not occur at a period so early, the yellowness of the skin will not generally become very prominent.

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* It has been observed that, in some cases, there is an urgent hunger experienced by the patient, at the subsidence of the first paroxysm.

This second stage generally continues about as long as the first, during which time many die; but those who survive, either mend from this period, or shortly pass into the third stage, which differs considerably from either of the first two. The pulse now sinks rapidly, the tongue is coated with a brown or black fur, the vomiting is almost continuous and exceedingly severe, and the matter now ejected is of a dark brown or black, resembling coffee grounds, (called the *black vomit*,) suspended in a glary or yellowish-brown liquid; the burning in the stomach becomes intolerable, the discharges from the bowels are green or black, and frightful hæmorrhages often ensue. The extremities grow cold, and hiccough and violent convulsions close the scene, or the patient may sink away from the loss of blood. Delirium often sets in before death.

Cause.—As already hinted, there has been much difference of opinion among physicians, as to the cause of this disease; but it is now pretty generally conceded, that it is most commonly of *miasmatic* origin, but it is not dependent on the putrid effluvia arising from the decomposition of vegetable matter alone, as it may, and does frequently arise and prevail alarmingly, from *idio-miasmata*, or the putrid effluvia arising from the decomposition of animal matter.

Dr. Thomson considered that the principle in the infected atmosphere, which is the cause of this disease, is a *nitrous gas*,* which is very poisonous, and which from its known properties or character, is entirely adequate to the production of this disease. He states that when it arises from marshes or the decomposition of vegetables containing *nitrogen*, it, from its specific gravity, (being a little greater than that of the atmosphere,) is confined to low places, and hence the more frequent occurrence of this, and other miasmatic diseases, in low grounds and along streams, on the surface of which, he says, this poison is carried in great density.

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* Deutoxide of nitrogen.

The *protoxide of nitrogen* is of a specific gravity a little less than that of the atmosphere, and if Dr. Thomson's views are correct, this combination of nitrogen may account for the occasional appearance of miasmatic diseases on high grounds.

The suddenness of the attack, the extreme nausea and irritability of the stomach, the *black vomit*, and the yellowness of the skin, are the principal characteristics of this complaint. But these peculiarities are chiefly confined to the more violent cases of the disease. When the attack is more mild, the symptoms very much resemble the common remittent fever, only it is considerably more attended by irritability of the stomach.

Yellow fever may justly be considered a dangerous disease, sometimes proving rapidly fatal, even in a few hours. Its duration is generally from five to seven days. The unfavorable signs are the black vomit, delirium, and convulsions.

Treatment.—Dr. Thompson gives the following:—"This disease should be treated with the most rigorous course of medicine, [*i. e. vapor baths, lobelia emetics, and enemas,*] and a continued perspiration must be kept up. The surface should often be bathed with a strong alkaline wash, made of hard wood ashes put into water and allowed to settle, and then mixed with whiskey or West India rum, to clear the glutinous substance from the pores, and prevent an absorption of the morbid matter that has worked out by perspiration. Baths should be used daily, and the temperature of the system generally, should be kept as regular and as near that of health, as artificial means will effect it. Soups and gruels highly seasoned should be taken as food, and strong tonic mixtures, such as bitters, syrup, &c., to strengthen, should be used as soon as the state of the stomach will admit of such treatment. The saline properties of the blood become much reduced by this disease, by which means the system becomes very putrid, therefore pepper and salt should be used in great profusion in the nourishment, after thorough courses of medicine." The Doctor's object may be effected in the following way: in severe attacks, the patient, after taking a few doses of capsicum, should be immediately placed over a vapor bath, which should be raised gradually until free perspiration appears, when the body may be wiped with a dry towel, and the following wash applied :—

℞ Common Salt,	2 table spoonfuls,
Capsicum,	1½ "

Pour on half a pint of boiling water; then stir it until the salt is dissolved.

This should be prepared while the patient is in the bath, so as to have it ready when it is needed. As soon as the patient is thus bathed, he must have an active lobelia emetic, and an enema composed of an infusion of thoroughwort, to which should be added a tea spoonful of brown lobelia, and one tea spoonful of the tincture of myrrh. During the operation of the emetic, the patient should drink freely of an infusion of thoroughwort and nervine tonic, and must also be well supported by nourishing broths. Prepared charcoal, if taken after the operation of the emetic, in table spoonful doses, will generally quiet the stomach. The bowels must be kept free with the use of enemas. Should this first course not break up the disease, it must be repeated until the urgent symptoms yield; the lobelia need not, perhaps, be employed in such large quantities in the subsequent courses; nevertheless, if the disease should still prove obstinate, it must be treated as at first. Mild cases of this disease may be treated in the same way recommended for remittent fever.

As soon as the skin becomes permanently relaxed, the use of active tonics should, in this disease, always be instituted.

The apartment of the sick must be well ventilated, and cleanliness be strictly observed. Chloride of lime may be used to correct the effluvia; — see this article by reference to the Index.

SCARLET FEVER. — (*Scarlatina.*)

This disease, like most others, is susceptible of variations in its violence, and hence has generally been divided by authors, into several grades. The three following, however, alone are worthy of consideration in the present case, namely: *scarlatina simplex, scarlatina anginosa*, and *scarlatina maligna*. The first of the varieties consists of a mild attack of the disease, in which the fever seldom runs high, but there is an eruption or efflorescence on the surface, giving to the skin quite a scarlet appearance, which generally sets in in the course of from two to three days after the appearance of the usual premonitories of the fever, such as lassitude, stretching, drowsiness, and chills. This variety of the disease generally passes off in the course of a few days; the eruption by desquamation.

The second, *scarlatina anginosa*, is characterized by a very high fever,* and a more regular or complete eruption, attended, moreover, with inflammation of the *fauces* and *throat*. The fever is early accompanied with a kind of stiffness and dull pain in the muscles of the neck, and under the ears and angles of the jaw. Deglutition now becomes difficult and painful, and the fauces, on examination, will be found to be of a scarlet appearance, like the surface, and to be enlarged. In bad cases, the inflammation in these parts runs very high, and in many cases results in suppuration.

The scarlet eruption, in this variety, does not appear as early in the disease as it does in the simple variety, and although it is most generally more complete when it does appear, yet it frequently recedes the second day after its appearance, and is not observed again fôr a number of days, when it is again developed. It may be regarded as a general rule, that as many days as the eruption disappears, so long will the crisis of the disease be protracted, as the patient does not generally improve during this time.

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* Currie and Wilson have found the temperature even of the surface, as high as 108 to 112 degrees Fahrenheit.

If the fever declines as early as the fourth or fifth day, the inflammation of the throat will be likely to pass off with the fever and eruption, and suppuration may not ensue. But should the fever run very high, and continue beyond this period, and should the swelling and inflammation in the throat be considerable, ulceration may be expected.

The third variety, *scarlatina maligna*, presents a series of phenomena still more to be dreaded ; but it is indeed probable that in a large majority of these cases, the malignancy is much dependent upon bad management in the treatment. It is deeply to be deplored that the fashionable practice of medical treatment in many cases of disease, is more injurious than beneficial. The most active poisons known, constitute many of the articles most depended upon, by many physicians, in the cure of disease !

"Although this form of the disease usually commences like the preceding variety, it soon betrays its violent and dangerous character. The eruption comes out at uncertain periods from the second to the fourth day, and is usually pale when it first makes its appearance, acquiring, in most instances, a dark or livid hue in the progress of the disease. It is also very irregular in its duration, and often suddenly disappears soon after it comes out, and reappears on some other parts of the body two or three days afterward. The temperature of the skin is variable and not generally very high ; and the pulse, though in the commencement active, becomes small and feeble in the course of the second day. Delirium generally occurs at an early period, and often continues, with occasional intermissions and exacerbations, throughout the subsequent course of the disease. In nearly all cases, the sensorial functions suffer very considerable disturbance ; and in aggravated instances the eyes are dull and inflamed, and the cheeks suffused with a livid flush. The tongue is dry and covered with a brown or dark fur, the breath fœtid. On examining the fauces, clay-colored sloughs are seen on the soft palates and tonsils, which acquire a brown, and at last a dark color. The disease, however, sometimes terminates fatally under symptoms of cerebral oppression, before the ulcers become extensive, or acquire a very ad appearance. 'In general,' says Dr. Armstrong, 'it is only when the fever is protracted beyond the fourth day, that the ulcers are converted into ill-conditioned, black, and fœtid sloughs.' There is generally a large quantity of very viscid mucus secreted and lodged in the fauces, giving rise to difficult respiration, and a rattling noise in the throat. When the sloughs are foul and excessive, a thin acrid fluid is generally discharged from the nose, occasioning irritation and excoriation of the parts with which it comes in contact. In cases of a particularly violent character, collapse supervenes toward the middle or end of the second week of the disease. When this occurs the heat of the surface sinks, the pulse becomes very frequent and feeble, the tongue dark-brown or black, the animal powers greatly prostrated, painful diarrhœa often ensues, and in some instances petechiæ and hæmorrhages from various parts occur, toward the fatal termination of the disease. The fever and ulcerous affection of the throat frequently exist, without an eruption at any period of the disease. Death sometimes takes place as early as the second or the third day, and Bateman observes, that occasionally the symptoms continue to be moderate until an advanced period, when they suddenly assume a malignant and rapidly fatal character."—(*Eberle.*)

Cause.—Scarlatina is generally regarded as dependent for its cause on a specific contagion.

Measles and miliary fever, are the only diseases with which scarlatina is likely to be confounded. During the first or second day, and indeed, during the entire course of the milder grades of this disease, the diagnosis is made out with difficulty. Eberle states that "there is not a single symptom that can be regarded as absolutely peculiar and characteristic of scarlet fever." It is true that when the disease is fully developed the difficulty will be less, but it often happens that the eruption is wholly or nearly absent, or it may be much diffused and blended; again, it may appear in blotches. The following circumstances, however, will generally enable us to distinguish scarlet fever from measles. The eruption in the former generally comes out earlier, usually within the first forty-eight hours of the existence of the fever; while in measles, the rash rarely appears before the third day, and most commonly not until the fourth; and in this, the eruption also differs *in character* from that of scarlatina. In the latter it is more diffused and blended, giving the appearance of a deep blush of the skin, and the eruption is very little elevated above the common surface; whereas in measles, the eruption is elevated somewhat above the surrounding parts, and consists of numerous small circular dots, like flea bites, being of a deeper red in their centre, and paler on the circumference, so that even though the redness of the spots may coalesce, yet the skin will nevertheless present a speckled appearance. The color of the eruption in measles is likewise much darker than that of the other, but perhaps the catarrhal symptoms of measles, are the most prominent distinguishing symptoms between the two diseases. The eyes also are inflamed, and tears flow profusely; there is more or less sneezing and cough; while in scarlatina these symptoms do not appear, or are so slight that they are generally overlooked.

The sudamina, or miliary eruption that attends various affections, especially typhoid fever, puerperal fever, &c., which has by some been considered a separate affection, and called *miliary fever*,) slightly resembles the eruption of scarlatina; but on examination, it will be found that the *miliary eruption* in scarlet fever only appears in scarlet blotches, whereas in the eruption attending other fevers, the miliary appearance may be observed to arise from parts of the skin possessing its natural color.

Scarlet fever terminates variously;—a variety of other diseases may follow: dropsies, are, however, by far the most general sequelæ of this disease. Abscesses of the tonsils, head and ears, enlargement of the parotid glands, gutta serena, (loss of sight,) deafness, loss of hair, hysteria, asthma, epilepsy, cutaneous diseases, and many other affections have been known to follow the disease.

A regular abatement of fever, attended with free perspiration, and softness of the skin, lateritious sediment in the urine, soft, but full and regular pulse, bright color of the eruption; desquamation or peeling off of the cutis or outer skin, continuation of strength and return of appetite, may in general all be regarded as favorable signs.

But if the strength should fail rapidly, the pulse sink, and symptoms of putrefaction supervene; or if violent delirium sets in, attended by a glassy appearance of the eyes, and above all, if gangrene of the fauces should occur, the danger will be imminent.

Treatment.—The indications of cure will be readily inferred from the character of the affection. It is evident that the urgency of the case generally corresponds with the deficiency in the development of the eruptive phenomena, for the case is generally comparatively mild when the eruption comes out early and continues complete. To bring about all the conditions necessary to the successful removal of the contagion or specific virus from the system, is among the first things to be done in the cure. The capillaries seem to be implicated more than any other part of the vascular system, and if obstructions here are the cause of the irregular development of the eruption, it is well to give attention here. Rubefacients, or what is better, the vapor bath, if it be convenient, must be used early in the treatment. The common bathing drops, or even the rubefacient solution, will be found very serviceable in bringing out the eruption, as well as to let down the fever. In the meantime, if the case be a bad one, an emetic of lobelia should be prepared and administered after the bathing, which should in turn be followed with small but frequent doses of the sudorific powders. The bathing and sudorific powders should be continued, until a favorable crisis is formed.

Local Treatment.—The local symptoms must receive such attention as the circumstances of the case may require. The rubefacient oil should be applied externally to the throat and angles of the jaws, and when ulceration takes place, the astringent gargle will be found of eminent service.

Capsicum.—With regard to the utility of capsicum in sore throat, there is now but little dispute. Dr.

Eberle speaks of it as follows:—"The *capsicum* appears to be a particularly valuable exciting remedy in this [*malignant*] variety of the disease." This article was first employed in malignant scarlatina, by Dr. Stephens, in a very fatal epidemic which prevailed at St. Christopher's, (West Indies,) in 1787, and it has since received the decided approbation of many eminent practitioners. The manner of employing it is as follows: take two table spoonfuls of small red pepper, or three tea spoonfuls of common cayenne pepper, and two table spoonfuls of fine salt; beat them into a paste, and pour upon them half a pint of boiling water; this is to be strained, and half a pint of good vinegar added to it. Of this liquor, when cold, a table spoonful is to be taken every half hour by an adult, and the throat should be frequently gargled with it. Stephens asserts that he employed this remedy in about four hundred cases, and with surprising success. The ulcers in the fauces soon cast off their sloughs and commenced to heal, a genial pleasant warmth was diffused throughout the whole system, and the vital powers speedily resumed a more active condition." The compound tincture of myrrh, or Thomson's No. 6, is also very good in putrid sore throat.

OF INFLAMMATION.

THE general principles involved in the foregoing doctrines of fever, are the fundamentals, also, of the present theory of inflammation.

The essential phenomena of fever and inflammation differ none in their primary manifestations, excepting that the one is local and the other general in its action.

The term *inflammation* is derived from *in*, within, and *flamma*, flame, fire, combustion; because of the burning pain attending it, and the appearance of the parts affected therewith, the chief characteristics being *heat*, *redness*, *pain*, *excitement*, and *swelling*.

In inflammation, as in fever, the proximate cause, evidently, is *oxydation:* in the latter, the circulation chiefly furnishes the elements supporting the process, while in the former, the elements of the tissues themselves are also acted upon.

It is unnecessary here to treat of the circumstances necessary to the phenomena of oxydation in the living animal body, as these have been presented in the article on fever, to which the reader is referred.

The remote and exciting causes may therefore at once be presented, in connection with the essential phenomena of inflammation, as they commonly occur.

We will suppose, therefore, that a lesion of any structure occurs by accident, as by a cut, bruise, puncture, burn, or any other mechanical or chemical violence; irritation sufficient to excite a large influx of blood must necessarily ensue. It is here said this *must* ensue, because of the peculiar endowment of all the sensible tissues of the body, *i. e.* the endowment of *irritability.*

No law of our constitution is better known than this, that wherever irritation is excited there will be an increased flow of blood. Though the doctrine *ubi irritatio ibi affluxus* has been disputed by some, on the ground that it is inconsistent with the laws of hydraulics — they assuming that the arterial circulation is strictly mechanical, and altogether dependent upon the action of the heart, and therefore it would be impossible that any part of the body should receive a quantity of blood disproportioned to the circulation in other parts.

But the experiments of Dr. Phillip seem to demonstrate that the blood-vessels have a power of action independent of either the nerves or heart, and that the blood will circulate in parts when the heart is extracted. (See Philosophical Trans., 1815.) Analogies to this occur in animals which have no heart. This action is most probably due, to some extent, at least, to the vitality of the blood itself. The fact is now established, at least, that the arteries possess an inherent power of contraction, like the heart itself, and this power acts simultaneously with the latter.

The evident fact alluded to above, that there is an increased flow of blood to irritated parts, therefore admits an explanation.

The modern views on physiology go to show that the entire circulation is dependent upon the principle, ***irritability***, and the state of its activity always governs the state of the circulation.

Thus, any injury or agent, whose effects are inimical to the quiet state of the principle, irritability, will produce irritation, and thus increase the flow of blood to any part. The consequence is, that an extra amount of oxygen is supplied in the part, and if the latter should lack sufficient vital resistance to regulate the action of oxygen, it is plain that excessive oxydation, or, in other words, inflammation, must take place.

Irritation is the active state of the principle, irritability, and although it be necessary to the rise of inflammation, yet it does not necessarily produce it. We have a beautiful illustration of this fact in the transient exposure of any part, as the cheek, for instance, in a frosty morning. The cold irritates the part—the blood flows in freely—the part becomes red, tumid, and hot, showing that more oxydation goes on in the part than in the natural state; but as the vitality of the part is not deficient, the phenomena of oxydation and calorification are no greater than the circumstances demand; the cold exhausts the heat rapidly, and hence the oxydation necessarily is more rapid thus to supply the exhaustion of the temperature. Now, if the exposure were continued sufficiently long, or if the cold were intense enough to impair the vitality, inflammation would be the consequence.

The symptoms of inflammation are readily explained by this theory. The following is the chain of causes and effects: First, the exciting cause, as an injury or obstruction of any part occurs, irritation is immediately produced,* which excites an extra influx of blood, bearing oxygen sufficient to produce the inflammation, above stated.

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* The primary impression is commonly supposed to be conveyed by the nerves to the brain, and thence a force reflected which directs the greater influx of the blood. But, as has already been stated, the irritability itself seems to control the circulation, and thus the circulation has been known to go on in parts cut off from the influence of the nerves, and even the heart

The *swelling*, *redness* and *pain* are effects of a crowded or compacted state of the vessels, by the extra influx of blood. The more delicate arterial ramifications usually contain white fluids, but in a state of congestion the red blood is forced into them, and thus the *redness* is occasioned, and the parts become turgid, or *swollen*, by the compaction. The pain is referred by some to the injury the nerves sustain by the compacted state of the vessels—being compressed, stretched and otherwise disturbed; while others refer it at once to the irritation.

In the foregoing brief remarks on the proximate cause of inflammation, as related to the several exciting causes, it will be observed that the essential phenomena involved are identical with the vital processes, just as was said of fever. Inflammation is not, therefore, necessarily, a pathological condition, circumstances only make it such, and in many instances, as in the reparation of injuries, some of the most remarkable sanative effects are produced by some of its processes.

Our surgeons now well know the importance of these natural processes; they are well aware that all that is effected in surgery, by what is called "*first intention*," is the result of inflammation. The healing of wounds; the restoration of fractures; and the cure of bruises or contusions, are all alike dependent on inflammation. By its agency, extraneous substances are removed from every part of the body. Of this we have a very good example in the removal of pus from the liver. This may be effected by ulceration through the parietes and it be thus discharged externally, or the parts may contract adhesions with the intestines, perforate them by ulceration, and the matter may in this way be removed; or the liver may form adhesions with the pulmonary organs through the medium of the diaphragm, and by ulceration, the matter may penetrate the bronchia, and thus be removed by expectoration. Again, when the location of the pus is in such a part as renders either of these modes of escape impracticable, we find that a *cist* will be formed around the matter, so as to protect the parts, when the pus will be taken up and carried into the circulation, and thus be ultimately removed by the cutaneous exhalents. Finally, we find that when a solid substance is forced into the soft parts, as, for instance, the obtrusion of a splinter or thorn, the surrounding parts will soon take on inflammation, and ulcerate, and thus carry off the substance in a flood of pus. On this subject, Dr. Marshall Hall remarks as follows:

"Some of the provisions of nature — or rather of the Creator of all things — accomplished through the medium of the action and processes of inflammation, are quite wonderful. An abscess may form in the liver; the pus may be expectorated through the bronchial tubes; and the patient may survive. An intestine may be strangulated by being intussuscepted into another portion of intestine; it may separate and pass per anum, leaving the original canal free and entire; and this patient, like the former one, may survive. If we experiment on a dog, draw out a portion of the small intestine, and tie a ligature firmly around it, so as entirely to obstruct its course, the adjacent portions of the intestine reunite, the ligature is separated into its canal, this canal itself remains pervious as before, and the animal survives the dangers of this fearful operation."

Terminations. — Among the most common terminations, as they are called, of inflammation, are *resolution*, *effusion*, *suppuration*, *induration*, and *gangrene*. These depend upon the nature of the physical changes occurring in the structures under the influence of oxygen and the vital principle.

Resolution. — Resolution takes place when the exciting cause of the inflammation is withdrawn or overcome before any considerable lesion occurs in the structures. In resolution, the pain gradually ceases, the redness disappears, and the swelling subsides, leaving the parts in their natural condition.

Effusion. — When the swelling assumes an œdematic (*doughy*) character, and seems to incline toward the more dependent parts of the organs affected, and if, moreover, the pain moderates and the redness incline to more of a pale or yellowish appearance, we may conclude that more or less effusion is going on. The matter effused is generally *serum* and *lymph*. Serum is frequently thrown, and sometimes in great abundance, on serous surfaces of the organs — that is, on the *lungs, pleura, diaphragm, &c.* — and into the *cellular tissues*, of which we have examples in dropsies. Lymph is also thrown out on inflamed serous surfaces, which is apt to coagulate, and thus often forms a union of contiguous surfaces. It is the effusion of lymph into lacerated wounds, that causes them to heal up. The matter effused in inflammation separates from the blood and the substance of the organs, by the collateral agency of oxygen and the *vis medicatrix naturæ*.

Suppuration. — This is a very common termination of inflammation. The general premonitories, if the action be extensive, are *chills, rigors* and *anxiety*. The local symptoms are a sense of a dull, heavy weight in the affected part, attended with more lancinating pains and with a circumscribed appearance of the redness and swelling. In the centre of the swelling, if it be in the outer parts, may now be discovered a point more elevated and soft to the touch, where the pus is collected. The integuments, also, become more and more thin, and assume a whitish or yellowish color, and at length lose their firmness, and give vent to the pus. The pus is, however, not always found in a collected form; for in some tissues it may lack the cist formation, and hence it may become *infiltrated* through the neighboring cellular portions. Infiltration is very common in the lungs, where abscesses are comparatively rare. Suppuration may also be *diffused;* thus, it sometimes covers large surfaces, as that of the *archnoid*. the *pleura*, the *pericardium* the *peritoneum*, &c.

Induration. — The parts often increase in consistence or grow hard, as the inflammation subsides. This termination may occur in any tissue of the body; but is by far the most common among the glandular parts, especially in the *spleen*, the *liver*, the *lymphatic ganglions*, and *subcutaneous cellular substance*.

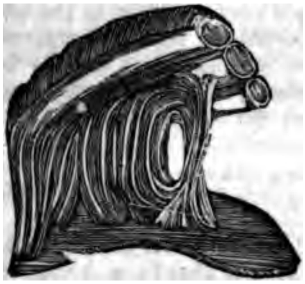
Gangrene.—In very violent cases of inflammation, in which the vitality of the part is much diminished, the inflammatory action may end in the death or mortification of so much of the part as the conservative powers are not able successfully to defend.

The general symptoms which foretell the approach of gangrene, are,—a collapsed state of the system; paleness; a cold, clammy sweat; sunken features; a peculiar cadaveric look; tremor; and a feeble, thread-like pulse. The part affected assumes a livid or purplish hue; its tension and elasticity diminish and yield to a doughy state like a cist containing thick fluids. The symptoms that give evidence of the immediate approach of *sphacelus*, are a loss of sensibility and heat, and a discoloration of the part.

Inflammation modified by textures.—The character and terminations of inflammation, are much modified by the character or kind of texture implicated.

Inflammation of the *serous* membranes, is characterized by effusion, first of *serum*, and afterward of coagulable *lymph* and *albumino-febrine*, which is sometimes considerably mixed with blood. Adhesions are apt to form in cases of inflammation of these membranes; and thus it happens that the pleura is so often found attached to the surface of the ribs and lungs.

The following cut from Baillie, showing an adhesion of the pleura to the ribs, well illustrates these adhesions.



Inflammation of the serous membranes seldom end in ulceration.

In inflammation of the *mucous* membranes, the reverse obtains. In this case the effusion consists of mucus, at first considerably transparent, but afterward becoming more opaque and puriform. Instances sometimes occur, in which the mucus is tinged, or even deeply stained with blood, as is evinced in *bronchitis*, and pretty generally in *dysentery* or *bloody flux*.[*]

It is rarely the case that we observe the exudation of coagulable *lymph*, in inflammations of this texture. Nevertheless, it occurs sometimes, as is seen in cases of *cynanche trachealis* or *croup*, and in the bowels and vagina, in which it is called *false-membrane*.[†]

This disposition of the textures is a very happy and important circumstance, for if the reverse should occur, if the mucus surfaces should exude coagulable lymph, and the serous surfaces mucus or pus, we would find that in inflammations of the œsophagus, bowels, urethra, vagina, &c., that they would contract adhesions and close up their passages, while the pleura, pericardium, peritoneum, &c., would be subject, on the occurrence of inflammation to ulcerations, and thus be attended with consequences almost certain to prove immediately fatal.

It seems that when inflammations implicate parts constituted of various textures, that these, severally, evince their common characteristics. Thus the mucous textures throw out mucus and pus, while the serous in turn line their surfaces with lymph and serum. Accordingly we find that in typhoid fever, in cases even of perforations, that while the internal surface is sloughing off, the outside is contracting adhesions to contiguous surfaces, forming in this way a protection to the abdominal cavity against extravasation, which would necessarily prove fatal by the violent peritoneal inflammation that it would occasion.

"The *parenchymatous substance* of organs, is apt to be softened by acute, and indurated by chronic inflammations. Softening, induration, and abscess, are frequently seen in the brain, abscess in the liver, gangrene in the lungs." — (*Hall.*)

The *arteries* are not much disposed to inflammation from injuries; when they are wounded, the margins of the wound may take on inflammation, a coagulum form, and the wound heal. When an artery is divided, the ends will contract, and a *stopper-like* clot of blood form in each; adhesive inflammation now closes up the artery, as represented in the annexed cut, which is given by Dr. Jones, and is designed to show the *femoral* artery of a dog, nine days after it was divided.

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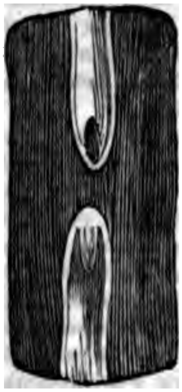
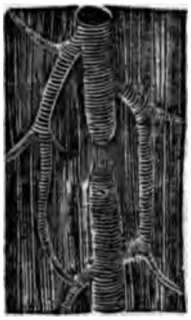
[*] When the inflammation subsides, or the mucus becomes more cool, it reassumes its transparency.

[†] This is what Dr. S. Thomson denominated canker.



It will be seen that the ends are considerably retracted as well as contracted, and that the coagulum is neatly healed into the ends or stumps of the vessel, and assuming a firm texture like the artery itself, is sufficient to resist the force of the circulation, and thus prevent the hæmorrhage that would otherwise take place, and thus immediately destroy the subject.

The circulation is now sustained through these parts, by the anastamosis of their branches, as represented below.



By this cut it is designed to show the healing of a large artery, to which a ligature was applied, and the circulation carried on by the anastamosis of the branches in the neighboring parts.

The *veins* manifest a disposition different from the arteries. In these we observe diffused effusion of albumino-fibrine, but adhesive inflammation is not so likely to occur. When a vein is divided, we do not find the same readiness of the vessels to heal up. It is true, that coagulable lymph may be thrown out by the surrounding textures, but the ulcerative process, is most likely to occur. Diffusive phlebitis is by no means an uncommon occurrence, and this may run along the vein even to the heart, and thus prove speedily fatal. It is very common to observe mischiefs of no small magnitude to follow even the small puncture of the lancet, in the practice of blood-letting. If there were no more disposition to heal in the arteries than is found in the veins, we might expect fatal hæmorrhages universally to accompany wounds or ruptures of these vessels, for although ligatures might be applied, the parts not healing* would in many instances rot away, and renew the difficulty.

Inflammation of the *lymphatic* vessels is, like phlebitis, apt to be diffused. The morbid action extends along their course toward the thoracic duct and the heart, and would probably prove as fatal in its results as phlebitis, if it did not meet with a barrier in the glands of the system, situated in the neck, the axilla, the groin, &c. These glands guard the inlets into the great cavities; they frequently suppurate, and what havoc would ensue, were they *within*, instead of being without—Poupart's ligament for example? Inflammation of the absorbents generally terminates by resolution. In one instance, however, it passed on to suppuration, and many abscesses formed in the course of the lymphatic vessels, as they ascended from the heel (which was the seat of ulcer from chilblain, the cause of the inflammation,) upward along the thigh.—(*Hall.*)

Ulceration of the *lymphatic glands* frequently occurs from the morbid accumulations which arise from ulcers, &c., in the extremities, and are carried by the lymphatic vessels into these glands. The glands of the neck, axilla, and groin, are often found thus affected.

As to the *fibrous tissues*, *tendon* may slough, *cartilage* and *ligament* ulcerate; but they, as well as the *muscles*, are more apt to end their inflammations in the exudations of serum and gelatinous fluids, or the deposition of earthy matter. But by far the most frequent termination in these tissues is by resolution.

Inflammation of the *osseous* tissue is apt to terminate in necrosis, and caries.†

Finally, we find in the termination of inflammation in the cutaneous tissues, the evidences of a mixture of textures. The ulcerations occurring here are very analagous to those of the mucous linings of the intestinal canal. Erysipelas exhibits an imperfect development of suppuration, sloughing, and gangrene.

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* It is true that veins that are tied do heal up many times, yet all surgeons know how difficult the process is.

† Caries may be considered to correspond to ulceration, and necrosis to mortification.

In the variolous pustule, we have an example of the different phenomena that attend inflammation of this structure. In the first place, a sebaceous gland will manifest the usual symptoms of inflammation, that is, redness, tumor, &c.; on the third or fourth day, we have the effusion of *serum*, in a vesicle with its centre tied down by the duct of the gland; on the fifth day, we observe the deposition of *pus* around this central point; on the seventh or eighth day, the serum is entirely replaced by pus; and probably on the ninth, the central duct has been absorbed or has sloughed away, and the pustule assumes an orbicular form. Effusion of lymph may also be observed, which occurrence is shown by the cicatrix that marks the part after healing. It will be observed moreover, during the process of the inflammation, that sloughing of the cutis vera occurs about the time that the pustule is in its maturity.

INFLAMMATION OF THE BLADDER.

(*Cystitis.*)

This affection is of rare occurrence, and when it does take place, it is generally the result of injuries to the part. It may, however, arise from the irritation of a calculus or stone in the bladder, from suppression of urine, the use of cantharides or Spanish flies, &c.

Symptoms.—Tension or hardness, tenesmus, fever, hard pulse, and pain in the parts, frequent desire to urinate, with difficulty to void it; or sometimes a total suppression of urine, are among the most prominent symptoms of this disease.

Treatment.—Enemas of the infusion of lobelia and thoroughwort, frequently administered, together with the use of the rubefacient oil or wash, over the region of the bladder, and the usual means of equalizing the circulation, will generally be all that is required.

When there is suppression of the urine, it may be necessary to draw it off by means of a catheter.

In very severe cases the water should be drawn off, and leaving the catheter remain, an infusion, made by scalding a tea spoonful of lobelia in a pint of thick slippery elm tea, stirring it till it cools, and then straining through a cloth, should be injected (once in a few hours, in portions of a tea cupful,) into the bladder through the catheter, by means of a syringe having a point that will enter the catheter. This application with the other parts of the treatment, will generally give relief with considerable promptness, even in the worst of cases. Cold water injected into the bladder in this way, when the inflammation runs very high, will sometimes be serviceable.

INFLAMMATION OF THE BOWELS.

(*Enteritis.*)

Inflammation of the bowels manifests itself by pain in the abdomen, particularly in the umbilical region, which is accompanied with eructations, sickness at the stomach, a vomiting of bilious matter, obstinate costiveness, thirst, heat, great anxiety, and a quick and hard pulse. As the disease progresses, the pain grows more severe, the bowels seem spasmodically drawn together, and the abdomen becomes much distended, and very painful to pressure ; the constipation becomes more distressing, and the urine scanty or completely obstructed.

Dissections in this disease, show that when these symptoms appear, the diseased action chiefly implicates the external or peritoneal coats of the intestines; and that when the inner or mucous coat is principally affected, the usual symptoms of dysentery prevail.

The affection sometimes involves only a small portion of the intestinal tube, but more generally pervades them to a very considerable extent.

The inflammation commonly terminates by resolution, but effusion and adhesion to contiguous parts sometimes occur, or ulcerations may take place, or gangrene set in.

Treatment. — In the treatment of this severe, and frequently dangerous affection, the main object should be to equalize the circulation, and direct the determining powers to the surface. For this purpose, no means is better adapted than the vapor bath, which should be applied alternately with the rubefacient wash or bathing drops. The next object should be to open the bowels, which must be effected with the use of appropriate medicines, by means of injection. For this purpose the following is very good:

℞ Gum Arabic, or Slippery Elm Powder, ½ oz.,
Lobelia, (fine,) . . . . 1 drachm.

Put the ingredients into a pint of cold water, and agitate it well. This should be used at one injection, and a like portion administered every hour, until the bowels evacuate. Should the inflammatory symptoms run very high, cold water, by injection, will sometimes be found very useful.

The stomach in this complaint is usually very irritable, and hence, generally, requires attention. An infusion of spearmint or peppermint may be used to obviate the nausea, and should this prove unsuccessful, a handful of the mint herb may be scalded and applied to the stomach externally, or the oil may be applied in its stead.

Emetics. — Lobelia emetics, besides their beneficial effects in cleansing the stomach, are eminently serviceable for their relaxing powers, and tendency to equalize the circulation.

Diaphoretics. — A free perspiration should be kept up, but this must be done, as much as possible, by external means, as by keeping a steaming stone to the feet, the use of the vapor bath and the rubefacients. The milder diaphoretics, such as the white root and pennyroyal, may however be used, in the form of a tea. The use of the acetate of ammonia is here suggested to the mind of the author, but as he has never tried it, he cannot vouch for its utility.

Cathartics.—In this disease cathartics are not advisable, because of the irritation they are apt to excite in the bowels. It may, however, be proper sometimes to use a dose of olive, almond, or castor oil, as they are emollient, and less irritating than cathartics in general.

Fomentations.—Fomentations of hops, camomile and rue, with a few pepper pods stewed in vinegar, and applied to the bowels externally, are sometimes of signal service.

Slippery elm water, or the mucilage of gum arabic, should be drank pretty freely, with a view to their emollient effects on the bowels.

INFLAMMATION OF THE BRAIN.

(*Phrenitis.*)

PHRENSY, as the disease is sometimes called, is characterized by a considerable fever, violent headache, redness of the face and eyes, intolerance of light and noise, watchfulness and delirium.

The disease comes on with a sense of fullness and heat in the head, flushing of the countenance, redness of the eyes, and a full pulse. The stomach and bowels soon become disturbed by sympathy, and hence there is, sometimes, more or less vomiting, and pain in the bowels. The pain in the head is not always severe; when the morbid action affects the substance of the brain alone, there is seldom much pain, as this tissue is not very sensitive, but when the meninges or membranes are implicated, which is generally the case, the pain is distressing.

As the disease advances, the fever increases, and the delirium sets in; the patient looks wildly, talks incoherently, grits his teeth, and becomes very restless. At the highest stage of the disease, the headache sometimes becomes intolerable, and the delirium rises to a raving pitch.

Treatment.— In the treatment of this violent affection, no time should be lost in applying the most prompt means. The first object should be to equalize the circulation; and for this purpose, enemas made of thoroughwort tea, containing a tea spoonful of capsicum, and as much lobelia in each, must be immediately administered, and continued on at suitable intervals, until relief is obtained. Mustard plasters, or at least a hot steaming stone, should be applied to the feet. The patient must be kept sick with nauseating doses of lobelia, but until the pressure to the head is relieved, it should not be pushed so far as to produce vomiting. A sinapism to the nape of the neck, will relieve the headache.

Cathartics.— These agents are of great importance in the treatment of this disease. A cathartic powder composed of equal parts of jalap, senna and peppermint plant, finely pulverized and mixed, will be an excellent preparation. The dose is a large tea spoonful, divided, and given thirty minutes apart. Castor oil is likewise quick in its action, and may be used. Podophyllin is good, but rather slow in its action.

Diaphoretics.— The acetate of ammonia in tea spoonful doses, is an important medicine; it should be repeated every two hours, till perspiration is produced.

Local Means.— Sulphuric ether, or cold water, should constantly be applied to the head.

INFLAMMATION OF THE EYES.

(*Ophthalmia.*)

Inflammation of the eyes may be confined to the lids and external membranes of the eyes, or it may also implicate even the whole globe.

The symptoms in this affection are redness of the eyes, with pain and heat over their surface, and soreness of the lids; there is also generally a profuse effusion of tears, and an intolerance of light.

Cause.—Exposure to wind or dust, working before a very hot fire, the obtrusion of extraneous substances, excessive weeping or crying, cold, external violence, eruptive diseases, syphilis, &c., are among the most common causes of this complaint.

Treatment.—The treatment will depend much on the character of the disease. In acute inflammation, cold water will be one of the best remedies. In the chronic variety, the following is excellent:

℞ Crocus of Iron,	2 drachms,
Sulphate of zinc,	1 drachm.

Pulverize, and dissolve in a pint of rain water. The medicine may be applied three or four times a day, until the cure is effected

Infusions of lobelia and hydrastus are very good. A solution of acetate of lead, is a remedy highly prized by some.

In cases of long standing, small doses of podophyllin should be given for some days, until the bowels become loose, and then followed by an alterative medicine.

Astringent vegetable infusions are sometimes indicated.

INFLAMMATION OF THE KIDNEYS.

(*Nephritis.*)

Symptoms.—Acute pain in the region of the kidneys, extending downward along the course of the ureters; a frequent desire to pass urine, attended with difficulty in voiding it; a hot skin and constipation of the bowels, are the principal symptoms. If only one of the kidneys is affected, the patient will have a disposition to lie mostly on the side affected.

Treatment.—Diaphoretics, relaxants, and such other means as are calculated to equalize the circulation, and direct the determining powers to the surface, are indicated in this disease. Enemas of thoroughwort, with a small portion of lobelia and the extract of mandrake, (3 to 5 grains,) should be administered, not only with a view of keeping the bowels open, but in order, by these means, to control the diseased action in the kidneys, by a revulsive effect.

Rubefacients.—The rubefacient oil or stimulating liniment, should be applied to the small of the back with friction, and after this, a steaming stone should be laid against the part, the patient being in bed.

Revulsives.—An irritating plaster applied to the small of the back, will frequently be found of great service.

Diuretics.—Queen of the meadow, or the Indian hemp, must be used in strong infusion, and continued until it produces a sensible diuretic effect, and then be followed with a decoction or infusion of dried peach leaves, till health is restored.

INFLAMMATION OF THE LIVER.

(*Hepatitis.*)

Authors, in treating of this affection, generally regard it as consisting of two varieties, the *acute* and the *chronic*.

The acute variety comes on with a pain in the right side, usually extending up to the shoulder, which is much increased by pressure on the parts. The tongue is mostly coated, and there is often nausea and sickness at the stomach, with occasional vomiting of bilious matter. The urine is deeply stained with bile, and the eyes and skin are also of a yellowish color. The patient usually inclines to lie on his right or affected side. There is generally considerable fever, especially if the attack is severe.

In the chronic variety the same symptoms are generally present, but are not so prominently marked. The patient will perhaps be able to be up, but will be complaining more or less of pain in his side, want of appetite, indigestion, flatulency, and a feverish state of the body.

The pain in either variety, though sometimes quite acute, is more usually of an obtuse or dull character; indeed the disease, owing to the absence of pain, often progresses considerably before it is detected. Instances have occurred in which no hepatic derangement was at all suspected, and yet by examination after death, it was found that the liver was very extensively ulcerated.

In this affection, especially in the chronic variety, tubercles in the liver are of very frequent occurrence. These are sometimes of considerable size, but more generally they are small, and many in number.

The liver when in an inflammatory condition, sometimes varies very much in its color; the author saw one in the hospital at Cincinnati, that was taken from a patient that died in the wards, the color of which was such as could not be distinguished from that of the lungs. Besides the change of color, it is often found that changes of its size occur; it sometimes becomes enormously swelled.

Treatment.— Liver affections are sometimes very difficult to cure, for, as above stated, the diseased habit generally becomes much confirmed before it is detected; but by the use of proper means and perseverance, this affection may generally be cured as well as others.

Emetics.— In the treatment of liver affections, emetics render important service in relaxing the diseased organ, and stimulating it to a healthy action. Their power in equalizing the circulation, is also as efficient as any other agency in the resources of our materia medica. The mechanical pressure and agitation of the liver, during the operation of emetics, is moreover very beneficial. In this complaint as well as in most others, the lobelia inflata is entirely the best article of the emetic class. It should be administered in small, but frequent doses, so as to keep up a continued nausea for several hours, when the doses must be increased so as to produce active emesis. The vapor bath is eminently calculated to promote the good effects of the lobelia, and will also do much to equalize the circulation, and to remove the bilious obstruction in the circulatory system.

Cathartics.— After the system is well relaxed, a dose of podophyllin* must be given, and until the operation of this, a flesh-brush or coarse towel should be used freely, and be followed with the application of rubefacients or stimulating washes. Should the symptoms not yield to the operation of one dose of the podophyllin, the medicine should be continued in broken doses, so as to keep up an action in the bowels for several days. In the mean time, the system should be supported with the use of stimulants, tonics, and nourishing broths.

Local Means.— After the parts are briskly rubbed with the dry hand, the irritating plaster should be applied to the right hypocondriac region, or directly over the painful or diseased part. This should be left to remain for a number of days, or until its effects are developed.

When the plaster is not at hand, the stimulating liniment or rubefacient oil must be used once or twice a day, until the plaster can be procured.

Tonics.—The laxative tonics, as the gentian, yellow parilla, or boneset extract, are all excellent, and should be employed during convalescence.

INFLAMMATION OF THE LUNGS.

(*Pneumonia.*)

The inflammatory condition of several of the organs of the chest are, sometimes, known by practitioners under the above names.† Authors, however, usually treat these under separate heads. When the inflammatory action chiefly involves the *bronchial tubes*, it is called *bronchitis;* and when the substance or surface of the *lungs*, *Peripneumonia*.

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* When this is not at hand, the powdered root, with a small portion of capsicum, may be used in its stead.

† Pleuritis, or inflammation of the pleura, is frequently confcunded with pneumonia.

BRONCHITIS.

"The symptoms vary very materially; but in every case there is cough, differing, however, in its character and intensity, but always more marked, perhaps, than in other diseases of the respiratory organs. The expectoration, too, differs greatly. At times, it is clear and transparent; at others, very frothy; or, on the other hand, viscid, adhesive, and containing small, white grains, which adhere to the vessel. These particles have been mistaken for portions of pulmonary tubercle, and, therefore, have been supposed to be indicative of phthisis; but if there be any doubt as to their nature and origin, the doubt may be dissolved by placing some of them on a piece of paper, and exposing them to heat. If they are merely sebaceous matter from the mucous follicles of the fauces and pharynx, they will leave on the paper a greasy stain, which will not be the case, provided they are tubercular matter from the lungs. In other cases, the sputa consists of a greenish yellow puriform mucus, which may either form a homogeneous mass, or the matter of each expectoration may remain distinct. Commonly they are devoid of smell, but at times they are insupportably fœtid. * * *

"The respiration may not be much affected; but, commonly, it is more or less oppressed, and, at times, seems to be complicated, as it were, with asthma — the difficulty of breathing recurring in paroxysms. Commonly, there is not much pain attendant upon it, unless the paroxysms of coughing are frequent and severe. Nor are the general symptoms usually marked. At times there is no accompanying fever; but, in other cases, the febrile movement is considerable; the inflammatory affection passing to the subacute form. When this is the case, the nutrition of the system is affected; emaciation takes place, with evident febrile exacerbations toward evening, and all the signs of hectic, under which the individual is gradually worn away." — (*Dunglison.*)

The affection is, however, not always so severe: in some cases there are only some slight inconveniences of cough, attended with an expectoration of tough mucus, and perhaps a pain or sense of soreness in the upper part of the chest, which is increased by taking full respirations.

PERIPNEUMONIA.

This variety of pulmonary affections comes on with lassitude, dullness, chills alternated with flushes of heat. In a day or two, and sometimes sooner, a considerable fever comes on; the breathing becomes much oppressed, especially when the patient is in a horizontal position; a pain (which is sometimes acute, but more generally of an obtuse character,) is felt in the chest. There is a cough, which, though dry at first, is attended, in the course of a few days, with a copious expectoration of viscid phlegm, sometimes mixed more or less with blood. The skin is hot and dry; the pulse frequent, full, obstructed, but not generally very hard; and in the advanced stage of the disease, it usually becomes quite weak, irregular and labored. The urine is high colored, and is discharged in small quantities.

Inflammation of the lungs generally terminates in resolution, but may be followed by suppuration, or even gangrene; the last, however, is of rare occurrence.

Treatment.—The treatment of bronchitis and peripneumonia or real inflammation of the lungs, is very much the same. The first thing to be done, is to relax the system freely, and restore the functions of the skin; for as the disease is most generally brought on by exposure to cold or wet, the skin is always contracted, and its excretions consequently very much or completely obstructed. With a view to effect this, lobelia should be used in broken doses for several hours, while other means that are calculated to promote perspiration are promptly attended to. As soon as the patient is brought into a state of moisture, the doses of the lobelia must be increased so as to procure free emesis.

The patient should now be kept in a moist state, by using, alternately, the sudorific powders and a tea of the white root; or, instead of these, any other prompt articles of the kind that are more pleasant to the taste, may be employed in their stead, bearing in mind, however, that the great object is to keep the system relaxed and the skin moist.

Vapor Bath.—In very severe and threatening cases of the disease, the vapor bath is indispensable to a quick and safe recovery. It is best to use it immediately before the administration of the emetic. The relief that is obtained in lung affections, by this means, is astonishing to all that are unacquainted with the therapeutic effects of the hot aqueous vapor. All the benefits usually expected from blood-letting may be secured by the vapor bath, and that without any sacrifice.

Expectorants.—As soon as the cough commences fairly, expectorants become necessary to facilitate the removal of the matter accumulating in the lungs.* Either of the formulas of this class, found among the compounds, are very good in this complaint; but perhaps the better plan of procedure in these cases, is to use the expectorant powders, in tea spoonful doses, or in doses as large as the stomach will bear, three times a day, until the expectoration becomes free, (using some lobelia tea, sweetened, should the powder not prove to act with sufficient promptitude,) and after this, the expectorant syrup, in proper doses, two or three times a day.

Balsams.—The balsams ought not, generally, to be used in pulmonary affections, until the lungs are ready to be healed, that is, not until they are well cleansed by the use of the other means. The balsam of wild cherry is an excellent medicine of this class, and may be employed with confidence in all cases of lung affections in which balsams are indicated.

In chronic bronchitis, common to public speakers, the Shaker sarsaparilla will be found to be an excellent preparation. This is prepared according to the formula in the United States' Dispensatory, and will generally be found of good quality. It should be used according to the directions accompanying the bottles. The common sarsaparilla nostrums of the day should not be trusted.

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* If the precaution of keeping the other excretories of the body active, particularly those of the skin, be observed, the accumulations at the lungs will be much modified.

INFLAMMATION OF THE MOUTH.

(*Stomatitis.*)

THERE are various diseased conditions of the mouth that are attended with inflammation, and which require attention. We have *simple stomatitis*, or simple inflammation of the mouth; *aphtheous stomatitis*, or thrush; and the *follicular stomatitis*, or blistered sore mouth. These will be briefly considered separately.

SIMPLE INFLAMMATION OF THE MOUTH.

This is characterized by redness, heat, pain, and dryness of the mouth. The pain is much increased when substances come in contact with the affected parts, and even the touch of the tongue is very unpleasant. The lips often swell considerably, the eyes become red and painful, and general restlessness prevails.

The inflammation generally terminates in a few days by resolution, but it may end in ulceration, or even gangrene.

Treatment.—The difficulty may often be removed by holding fresh cold water in the mouth—renewing it as often as it gets warm. But if the inflammatory symptoms do not seem to subside readily, the following compound may be held in the mouth until relief be obtained.

℞ Slippery elm bark,	2 parts,
Prickly ash "	1 part,
Lobelia leaves,	½ "

Pulverize, and mix with cold water.

Should there be danger of gangrene, tincture of myrrh and capsicum should be used freely, while the dregs of myrrh, or a poultice of slippery elm with capsicum and lobelia, is applied externally. Cathartics are generally serviceable in this disease.

THRUSH.

This complaint is chiefly confined to young children and is characterized by an inflamed condition of the mucous membrane of the mouth, which soon becomes covered with a coat of curd-like appearance, that comes on first in patches, but in a day or two the tongue becomes completely covered with it. This white coating sometimes becomes detached, and is thrown off leaving the tongue of a livid color; but the parts soon become covered with it again.

Treatment. — In mild cases, nothing more may be necessary, than wetting the mouth a few times with some astringent wash. But if it will not yield readily, the following may be used:

℞ Bayberry bark,	1 oz.
Golden Seal root,	¼ "
Crane'sbill root,	¼ "
Borax, . .	¼ "
Privet leaves,	½ "

Pulverize all separately, and mix. A decoction of this, used cold or warm, will generally cure the most difficult cases in a few days. A decoction of rhubarb held in the mouth, will sometimes cure the disease alone.

FOLLICULAR INFLAMMATION OF THE MOUTH.

This is a slight affection; it may be either discrete or confluent. When it is discrete, it consists of little specks, that commence with small blisters, which soon break and leave whitish or yellowish disks with elevated red borders. These little sores are much more painful and troublesome than would be expected from sores of the size, by persons never afflicted with them. In some cases these specks are few in number, even, sometimes, only one or two; but in other cases they are numerous. The confluent form of the affection commences in the discrete form and coalesces. This form is by no means confined to the mouth; it may continue down the throat into the stomach; but in this form it is not common in this country; yet it is known to prevail in some seasons, considerably, in the interior of Holland.

Treatment. — The treatment should be commenced by a dose of rhubarb; but, without delaying for its operation, the parts should be treated locally by the use of the astringent tonic preparation, recommended for the last case mentioned. The rhubarb decoction is also serviceable in this affection.

INFLAMMATION OF THE PERITONEUM.

(*Peritonitis.*)

Inflammation of the peritoneum is ushered in by a feeling of lassitude, pain in the limbs, chills alternated with flushes of heat, headache, and a sense of weight and uneasiness about the stomach. Sooner or later, there is a pain felt in the abdomen,* while the inflammatory symptoms are becoming still more marked; the pulse grows tense, contracted and sharp; the stomach becomes irritable, and distressing nausea, with more or less vomiting, sets in.

The abdomen soon becomes quite much distended, and very tender to pressure. The patient lies on his back, and draws up his legs, thus to avoid the weight of the bed clothes.

The disease is very rapid in its course, sometimes terminating in death in the course of twelve hours, and hardly ever passing over five or six days.

Treatment. — The treatment of this affection is about the same as that recommended for inflammation of the bowels, to which the reader is referred.

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* A popular writer (Andral) states that the pain is not always experienced in peritonitis.

INFLAMMATION OF THE PLEURA.

(*Pleuritis.*)

Pleurisy often proves a very violent and painful disease; but like all other affections, is dependent on circumstances for the character of its symptoms.

This affection comes on with the same premonitory symptoms that usher in peripneumonia or inflammation of the lungs, proper. But there is soon felt a pungent pain in the chest, generally in the right side, which is always much increased by full inspiration, or on coughing. The breathing is hurried, short, and generally more difficult when the patient lies on the affected side. The cough is short and dry, or attended only with a glary and nearly colorless sputa. The pain occasioned by the coughing, causes the patient to avoid or stifle it as much as possible, and hence the sufferer is disposed to *hack* and *sigh* a great deal.

The disease is brought on by exposure to cold, and the other usual causes of inflammation. It terminates, most generally, by resolution, or effusion.*

Treatment.—Among the fashionable physicians of our day, the chief dependence is on blood-letting. This practice generally gives prompt relief, but it is obtained at too great a sacrifice. The blood is the *stream of life*, and should never therefore be thus inhumanly taken from the body.

The relief that is gained by blood-letting, is just as promptly obtained from the use of the vapor bath. Before this is applied, the patient should take a few doses of some stimulating relaxant tea, such as that of the sudorific powders, wild marjorum, sage, &c., and then the vapor should be admitted freely to the whole body.

In difficult cases, when the pain does not yield readily, some stimulant or rubefacient should be applied to the surface before the bath is used. To relieve the cough, expectorants must be used.

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* The effusion, as noticed in the general remarks on inflammation, is very liable to contract adhesions to the surrounding parts.

Cathartics are important in this disease; the compound recommended in the treatment of inflammation of the brain, is proper here.

The main importance in this disease, is to keep the skin moist, and the lungs free. The treatment of inflammation of the lungs and that of this disease should, in the main, be about the same; for further particulars the reader is, therefore, referred to the treatment of pneumonia, proper.

INFLAMMATION OF THE STOMACH.

(*Gastritis.*)

Acute inflammation of the stomach, as an idiopathic disease, is of rare occurrence. Chronic gastritis is much more common, and is indeed an almost certain concomitant of dyspepsia. It would seem that an organ so much exposed as is the stomach, would be much more liable to acute forms of disease than what the facts in the case appear to show. When inflammation of this organ occurs in the acute form, it is generally the result of the ingestion of poisons of some kind. These, alas, are too often taken under the idea of medicine! Thus *arsenic*, *mercury*, *antimony*, and many others of the most fatal poisons, are often taken by the people from the hands of those accredited the most skillful physicians. The mucous membrane is the part of the organ most generally implicated.

Symptoms.—Inflammation of the stomach, when it occurs in the acute form, commences sometimes with extreme pain in the epigastrium, attended with violent vomiting. But when the case is less violent, there may, at first, only be tenderness of the stomach, attended with nausea; and when the difficulty arises from the taking of some mineral poison, there is, generally, a sensible metallic taste in the mouth. Vomiting, however, soon ensues, which is attended with great pain and distressing irritability of the stomach, so that the blandest drinks are instantly thrown up, when taken. There is generally an urgent desire for cool drinks, especially for fresh water. The strength fails rapidly, and the spirits soon sink. The aspect of the countenance is expressive of great anxiety, suffering, and despondency. Sometimes the pain is so excessive as to cause violent delirium, but there is indeed, *generally*, more or less sympathy between the brain and stomach in affections of these organs. The pulse, which, although at first it is full, soon falls, and becomes very contracted, quick, and tense; and finally so small as scarcely to be felt. The bowels are usually in a constipated state.

The diagnostic or distinguishing symptoms of acute gastritis are the irritation of the stomach, and vomiting — the unintermittent character of the pain — the smallness of the pulse, &c. But perhaps the most certain sign is, the momentary cessation of the pain on taking a draught of cold water.

A subsidence of the irritation of the stomach, and the vomiting, diminution of the pain, moisture of the skin, fullness and regularity of the pulse, and a lateritious sediment in the urine, are all favorable signs. But on the other hand, should the violence of the pain and vomiting continue for several days, and should difficulty of breathing and hiccough supervene, and the pulse become smaller and more frequent, great danger may justly be apprehended. When, after the foregoing symptoms have progressed violently for a number of days, there is a sudden cessation of their violence, and the extremities become cold — the pulse and strength of the patient suddenly sink, the countenance assume a peculiar cadaveric look, and should the sight and hearing become dull, and delirium set in, or convulsions supervene, the case must inevitably terminate fatally.

Acute inflammation of the stomach may end in resolution, softening and ulceration, or gangrene; or what is often the case, the inflammation may assume the chronic form.

Post mortem appearances. — In violent cases of gastritis that have continued a number of days before the occurrence of death, the mucous membrane of the stomach will exhibit various appearances, on dissection. This coat of the organ is generally much thickened in places; it is dense, and minutely injected; and is often found ulcerated in spots of more or less extent, presenting a dark yellowish or brown appearance of the parts. In the most violent cases, death sometimes takes place before any lesion of the parts occurs.

Treatment. — The indications of cure in this case, are 1, to remove the cause of irritation; 2, to equalize the circulation; and 3, to tone up the system.

Should it be discovered, that the patient has swallowed poison of any kind, and especially if it has recently been taken, means for its removal must be promptly instituted. If a stomach-pump be at hand, it should be used; if not, an effort to excite efficient vomiting ought to be made by titillating the fauces with a feather. But should those means not prove immediately successful, an emetic of lobelia should be at once administered, and continued, in suitable doses, until the desired object is accomplished.

The use of emetics in inflammation of the stomach may, to many, seem like harsh and dangerous treatment, and, indeed, it is one not generally approved by authors; but it should be borne in mind, that it is not the *principle* that is really objectionable, but the mischiefs, usually referred to by those opposed to their use, may generally be traced to the character of the articles used for the purpose. Thus, in the fashionable practice, where mineral poisons are mostly used for this purpose, it may be expected that danger would attend their use. Lobelia, on the other hand, is not only *safe* but *mild* in its operation, and, what is more the irritation necessary to its specific operation is comparatively insignificant. After the stomach is well cleansed, the treatment should be of the same character that is adopted at the onset, in cases of acute inflammation of the stomach, arising from other causes than those of poisonous ingesta.

The great object in all inflammations is to equalize the circulation. With this view it is well to commence by applying the stimulating liniment over the entire body, and placing the feet into a vessel of water as hot as can be borne; or the vapor bath may at once be applied. A sinapism should be placed over the region of the stomach, and suffered to remain as long as possible without blistering. Should the pain not have subsided at the removal of the sinapism, the stimulating and relaxant liniment, or the bathing drops, may be applied to the parts from which the mustard plaster is taken. External frictions are of incalculable utility, and this may well be accounted for, if considered in view of the very extensive sympathy existing between the skin and stomach.

The medicines taken into the stomach should consist of bland mucilaginous drinks, such as slippery elm water, taken cold, marsh-mallows infusion, flaxseed tea, or oil of almonds. The neutralizing mixture is also very good to settle the stomach, if used in small doses; and so is even soda alone.

Enemas are also almost indispensable to the successful treatment of gastritis; they should consist of antispasmodics, laxatives, stimulants, and tonics, as the case may require.

In this affection, above all others, a careful attention to the diet should be observed. While the inflammation continues active, no food of any kind is digested, and hence it is worse than useless to keep up an irritation by the presence of food in the stomach. As soon as the stomach will bear it, such food as tapioca jelly, sago gruel, beef or chicken tea, and rice properly prepared, may be taken, until the stomach will bear stronger articles.

CHRONIC GASTRITIS.

When inflammation of the stomach assumes the chronic form, the symptoms differ somewhat from those that characterize the acute; they, however, differ more in point of their violence than in any other respect.

The pain in chronic gastritis is less severe than that attending the acute form, and in this the stomach seems to be less relieved by cold drinks than in the latter. In the chronic form, the diseased action always comes on more slowly; the stomach is less irritable, and the symptoms, in every respect, are less severe than in the acute.

As remarked under the head of *indigestion*, there is a very close intimacy or relationship between this disease and the affection commonly called *dyspepsia*. All that host of symptoms, commonly ascribed to indigestion, are the common attendants of chronic inflammation of the mucous membrane of the stomach.

The treatment of chronic gastritis differs little, in the main, from that recommended in the acute form of the disease. Rubefacients, an occasional emetic of lobelia, mucilage of slippery elm, fine charcoal with milk, a dose of soda or saleratus as occasion may require, a decoction of yellow willow bark, cascarilla, stomachics, and carminatives, are among the means used in connection with general treatment. For further particulars see the treatment for indigestion.

INFLAMMATION OF THE TONGUE.

(*Glossitis.*)

This is not a disease of frequent occurrence, but when it does set in, it is sometimes very violent, and rapidly fatal in its effects.

Symptoms.—The disease usually commences with a burning and throbbing pain in the tongue, which is attended with febrile symptoms that soon rise very high, and assume the synochal grade. The tongue is dry and parched, and is red and fiery in appearance, and swells enormously, even to bursting; it is sometimes thrust out of the mouth, "appearing like a mass of raw flesh." Deglutition is now impossible, and respiration very difficult, and as the disease advances, the patient, in addition to his intolerable suffering, is tortured with the dreadful apprehension of suffocation.

Inflammation of the tongue, in milder cases, generally ends in resolution; but ulcerations, and even gangrene sometimes supervene. The author was called, with some other physicians, in council, to a distinguished individual, laboring under an attack of glossitis that ended in gangrene in a few hours. The disease was perhaps beyond the control of medicine from the commencement, but certainly so at the time that the author first saw the patient.

The subsidence of the pain, swelling, and fever, and the appearance of moisture on the skin, may be regarded as favorable signs. But so long as the pain and swelling increase, the danger becomes more imminent.

Treatment.—The remedial means should be commenced by the use of active cathartics, so as to divert the diseased action from the part, if possible. By these means, it is true, the cause is not entirely removed from the system, yet the principle is justifiable in this case, for while the progressing lesion of the part is obviated, *time* is gained, which will suffice for the complete and safe removal of the difficulty. In the tongue, as in other organs where the texture and location of the part will not admit of the application of the means adequate to the direct subversion of the disease, a policy of the kind is always admissible.*

The speedy operation of the cathartic may be promoted by the use of enemas, and in cases where the tongue is so swollen as to prevent the medicine from being taken in the ordinary way, it must be given by injection. But without waiting for the operation of the cathartic, means should be instituted to produce a prompt and copious perspiration. To effect this object, the vapor bath is always the best adapted.

Local Treatment.—This should consist of rubefacients to the jaws and throat. If the rubefacient oil is not at hand the oil of wild marjoram, pennyroyal, summer savory, or cinnamon, must be used in its stead. A mustard plaster, applied around the jaws, and left to remain nearly long enough to blister, will generally be very serviceable. This should then be followed with a mixture of equal parts of the tinctures of lobelia and capsicum, or, in place of this, the bathing drops will do well. To the tongue, cold water, and cold mucilage of slippery elm, or flaxseed, must be constantly applied; and occasionally it should be washed with tincture of lobelia, or touched with the oil of this article. When ulceration or gangrene occurs, it must be treated, as nearly as possible, in the same way as recommended for other parts thus affected.

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* In contending with an enemy, in the department of *physic*, as well as the *military*, when we have not the chance of pitching the battle ourselves, it is our best policy to divert the enemy, and decoy him into any place most advantageous to us, before an attack is commenced—thus by the advantages of circumstances, a force much *inferior* may be successful.

INFLAMMATORY SORE THROAT; QUINSY.

(Cynanche; Angina.)

All the inflammatory diseases of the passages to the lungs and stomach, were formerly simply called *angina*; but in modern times nosology has extended its borders, and the throat diseases are variously named, according to their location. The chief of these, as *croup, mumps*, and *putrid sore throat*, (*scarlatina*,) are noticed elsewhere, and quinsy, or inflammation of the tonsils, alone, perhaps, belongs here; though there are several other parts of the throat that are liable to be affected with inflammation, which are generally confounded with this, even by physicians: these are, inflammation of the larynx, (laryngitis,) inflammation of the pharynx, (pharyngitis,) and inflammation of the œsophagus, (œsophagitis.)

Quinsy, or inflammation of the tonsils, (tonsilitis,) is characterized by swelling and soreness of the throat, attended with difficulty and pain in deglutition, and general symptoms of inflammatory fever.

Symptoms.—The disease usually begins with slight chills alternated with flushes of heat, which are succeeded with restlessness, accompanied with an uneasy feeling in the fauces, and more or less pain in the part on swallowing. In a few hours a fixed pain is felt about the tonsils, and the act of deglutition becomes more and more painful, until at last it is attended with extreme suffering, or is altogether impossible. On examining the throat, one or more tonsils are found very much swollen, and the whole surface of the fauces very red and somewhat tumefied. The tongue, also, is swollen,—white, and covered with a thick layer of transparent viscid mucus. The face is red and tumid; the carotids beat strongly; respiration is difficult; hearing obtuse; the pulse frequent, hard, and full; and the voice is indistinct and whispering. In general, much more difficulty and pain is experienced in swallowing liquids, than soft and pultaceous solids. The pain usually shoots from the fauces to the ears, particularly on attempting to speak or to swallow, and the mouth is opened with great difficulty and pain. A very thick, ropy mucus, commonly, adheres to the inflamed parts, and contributes much to the difficulty of respiration. The uvula and soft palate are generally very much swollen, but the principal pain and difficulty of breathing arise from the tumefaction of the tonsils. In some instances, the tonsils are covered with flakes of coagulable lymph of a whitish color, resembling superficial sloughs.—(*Eberle.*)

The quinsy is generally caused by colds, brought on by wet feet, wearing damp clothes, &c. Some persons are particularly predisposed to the affection, especially when they have had it once or twice. Eberle thinks, and very correctly too, that the effects of mercury create an increased aptitude to the disease.

An ordinary attack of this affection is not, generally, considered dangerous; but when the disease sets in violently, and the swelling advances rapidly, there is sometimes danger of suffocation.

The most common termination of quinsy is in resolution, though suppuration is not unfrequent, and even ulceration and gangrene in rare instances occur.

Treatment.—Quinsy and the various other inflammatory throat diseases above enumerated, may generally be arrested, if treated in time by the application of some stimulating liniment externally around the throat, and the use of a gargle of pepper and vinegar.

In severe cases, a mustard plaster should be applied to the throat, and nauseating doses of lobelia must be taken once in ten to fifteen minutes, until the inflammatory symptoms subside. If the use of lobelia in this way does not seem to promise success, the doses must be increased until free emesis is produced.

The swelling may deter some from the exhibition of an emetic; but it may be observed that the swelling rarely makes emesis impracticable. The author has, in some instances of this kind, administered the lobelia by injection, with the happiest effects, when deglutition was impracticable.

A paste made of honey, pulverized arum or ictodes, and lobelia, taken frequently in small portions, or kept in the mouth, will be found quite serviceable.

A large dose of castor oil, taken at the onset of the disease, will sometimes be found of great service.

APOPLEXY.

(*Apoplexia.*)

Apoplexy is characterized by a sudden loss or suspension of voluntary motion, while the vital functions continue with but little or no perceptible disturbance.

The attack sometimes comes on without any symptoms indicating its approach. More usually, however, there is experienced a sense of dullness, or a deep seated pain in the head, and vertigo or dizziness; ringing in the ears; throbbing of the temporal arteries; inability to articulate distinctly; dimness of sight, and dullness of hearing. Sometimes a sensation, as from flashes of light, or sparks passing before the eyes, are experienced; drowsiness and confusion of ideas; irregular spasmodic contractions of the muscles of the face; and in some instances pains are experienced in the pit of the stomach, in the side, and also sometimes in the fingers. But the most common and certain signs of the approach of a fit of apoplexy, are the pain in the head, vertigo, and ringing in the ears.

The duration of these symptoms before the fit sets in, is extremely various. In some cases they do not continue more than a few hours; in others they occur, with occasional intermissions, for many days, weeks, months, or even years. It is often the case, just before the attack commences, that the foregoing symptoms become considerably aggravated. In the most violent cases, the attack comes on with a sudden loss of sensation and motion, the patient sinking almost instantly into a profound stupor, which often within one hour ends in death. In less violent cases, the sufferer generally lays a number of hours in a state of deep stupor; his breathing is difficult and stertorous, and is attended with puffing and frothing at the mouth; his eyes, although sometimes immovably fixed, often roll wildly in their sockets, and are much bloodshot; the face is generally flushed and somewhat swollen; the veins in the temples and neck are turgid. The jaws are generally spasmodically closed, and swallowing is always difficult.

Apoplexy is caused by compression of the brain, and hence may arise from congestion, or extravasation of the blood, or from the pressure of serous exudations. When the disease arises from the first cause, it is called *apoplexia sanguinea*, and when from the latter, *apoplexia serosa.* Besides these, there are other causes that occur occasionally: the disease may arise from mechanical injuries of the head, from poisons, from violent passions of the mind, &c.

The disease chiefly attacks individuals of advanced age; and seeming, also, to prefer those of corpulent habits, and such as have a short neck and large head, and who practice intemperate, or inactive and sedentary habits.

Apoplexy is sometimes attended with palsy, or paralysis of some parts of the body, which is often difficult to cure. Instances also occur, in which the patient lies in a kind of a fit for several days, from the effects of which he seldom entirely recovers.

Treatment.—Immediately on the attack of apoplexy, the patient should be placed in an upright position, in a cool and airy place; his clothes should be loosened, especially those about the neck.

Medicine.—The first object in the medical treatment of this disease, should be to equalize the circulation. For this purpose, the *anti-spasmodic tincture* should be used freely. It is sometimes a matter of considerable difficulty to administer any medicine per stomach, owing to the difficulty of swallowing. Efforts should, however, be made to get down two or three table spoonfuls of the tincture; or, if the anti-spasmodic tincture is not at hand, the tincture of lobelia may be used in its stead.

Rubefacients and Friction.—The superior advantages of these means will readily be discovered by all. The rubefacient oil, or common bathing drops, should be applied to the entire body, with considerable friction or rubbing, which should be continued till the patient recovers.

Injections.—This mode of administration is often of incalculable advantage, especially if the medicine can not be administered in the common way. The same medicines may, in general, be administered in this way, that are used per stomach. One, two or three table spoonfuls of the anti-spasmodic tincture, or as much, each, of the tincture of lobelia and compound tincture of myrrh, with a pint of warm water, is a proper quantity to be administered at a time. The injections should be repeated as often as once in ten minutes, until relief is obtained.

Bathing.—The vapor bath, in apoplexy, will perhaps give relief quicker than any other means; but the facilities for its administration are not always at hand. To apply the vapor, the patient should be surrounded by blankets or quilts, so as to confine the vapor to the parts below the neck; while, at the same time, the head should be kept cool with cloths wet with cold water.

Emetics.—This class of remedies is particularly indicated, when the disease is caused by taking poisons, drinking spirits, or from taking large quantities of food.

But they are serviceable, also, when the disease arises from other causes.

Cathartics. — In the active stage of apoplexy, cathartics are not sufficiently active as remedial agents; but they may often be serviceable as preventives with persons that are predisposed to the disease, and thus, by their timely use, an attack of apoplexy may be warded off.

It is proper here to make some remarks in reference to the practice of blood-letting in the treatment of this disease, as this is the chief means employed in the old practice. Bleeding, indeed, has been so constantly resorted to in apoplexy, that the people have thought it indispensable; and it is sometimes with considerable difficulty that the physician resists their clamors for blood.

The idea generally prevails that the disease arises from a *superabundance* of blood, and that hence no treatment can be better than blood-letting: but this is a mistake. It is not the *quantity* of blood that does the mischief, but it is the interruption of its *free circulation.* Indeed, it is often the case, that apoplexy arises from the *loss* of blood. Professor Dunglison remarks on this head: "Anything that gives occasion to repletion, and, on the contrary, to exhaustion and debility, may occasion irregularity of action in the vessels of the brain, and, indeed, in the whole of the circulatory system, and produce hyperæmia [fullness] of that viscus. The effect of extreme exhaustion in inducing this state is seen in the prostration caused by excessive uterine, hæmorrhage. The patient may be pulseless, pale, and exanguious, [bloodless,] and, in the course of a few hours, may labor under the most manifest symptoms of active cerebral hyperæmia. * * In all sudden and violent attacks, indeed, it [blood-letting] is often had recourse to before even the practitioner sees the patient, and frequently with unequivocally bad effects. * * It is all important, however, to bear in mind, that the practice of drawing blood profusely, immediately on the occurrence of cerebral hemorrhage, cannot fail, at times, to be injurious. A shock is often given to the nervous system by the hæmorrhage, resembling that which occurs in concussion of the brain; and if blood be taken away immediately, and from both arms, as is often done, the same injurious effects may result as from the same practice in concussion. The practitioner should not be led away by the clamor of by-standers."* Dr. Eberle observes: "It is stated, and very correctly, that all the external manifestations of strong apoplexy are sometimes the immediate result of excessive hæmorrhage. I have already referred to the case reported by Mr. Brown, in which entire insensibility and stertorous breathing were the immediate consequences of excessive uterine hæmorrhage, and which were removed by transfusing blood from another person into the patient's veins. Dr. Denman has also related an instance of apoplectic symptoms supervening on very profuse hæmorrhage, and many more cases of this kind might be collected. * * The experiments of Kellie, on animals, show that serous effusion within the head is a pretty constant concomitant or consequence of excessive sanguineous depletion, and the experiments of Dr. Seeds go to establish the same fact." Thus it is evident, that the difficulty, instead of arising from an *excessive quantity* of blood, is in many instances caused by the *loss of blood*, and generally by obstructions to its free circulation. In view of this fact, it is plain, that in no instance is blood-letting the better practice, but that it is always mischievous, and often fatal. It is not here argued, however, that the practice may not sometimes give relief, especially in cases of violent cerebral congestion, (*termination of blood to the brain.*) but all this may be effected just as quick and certainly, by the proper means of equalizing the circulation, as it can possibly be done by taking away a part of the blood. Is it not as reasonable and philosophical for the practitioner to make room in the obstructed vessels for the necessary blood, as it is to take away a part of the blood, and thus adapt its quantity to the obstructed condition of the vessels?

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* Practice, vol. ii, page 281.

ASTHMA.

Asthma is an affection of the breathing apparatus, characterized by great difficulty of respiration, tightness across the breast, and a pressing sense of suffocation.

The disease generally occurs in paroxysms, which usually come on in the night, and the patient is often compelled to leave his bed, and seek the fresh air. As the paroxysm comes on, the breathing becomes difficult, laborious, and wheezing; the patient grows restless, his lungs seem to swell so as to fill his chest; the pulse is generally full and quick, the face often bloated, and the veins of the head and neck turgid; there is often a short dry cough, which is sometimes attended with slight expectoration, or raising of phlegm.

Treatment.—In the treatment of asthmatic complaints, no article has been found that will answer a better purpose than *lobelia*. The tincture should be used in frequent doses, and continued until relief be obtained. Such other convenient means as are calculated to relax the system and equalize the circulation, as bathing the feet, the vapor bath, stimulating and relaxing teas, &c., may be used in connection with the lobelia. Expectorants, as the skunk-cabbage, wild turnip, &c., are serviceable.

Emetics.—The dose of the lobelia, after it has been given long enough in small portions to relax the system, should, in severe cases, be increased so as to produce free emesis or vomiting; and thus the phlegm, loosened or disengaged by the expectorant properties of the lobelia first given, will be carried off during the process or act of vomiting.

After the paroxysm of the disease is broken up, the use of the lobelia should still be continued for some time, and on any subsequent recurrence of the symptoms, its use should again be early resumed.

Oxymel of Lobelia.— In severe cases, in which the patient is never entirely free from symptoms of asthma, medicine must be constantly used. For this purpose the *oxymel of lobelia* is best, as it is more pleasant to take:

℞	Lobelia herb, bruised,	4 ounces,
	Vinegar, ...	16 "
	Honey, ...	16 "

Digest the lobelia in the vinegar for four days in the sun, strain, add the honey, and mix well. Dose, a tea spoonful often repeated. A small quantity of ictodes may be mixed with the oxymel for this use.

Linseed Infusion.— An infusion of flaxseed previously well browned or roasted, in the same way that coffee is prepared, is very good for asthma in children.

Vapor Bath.— In severe paroxysms, it will be found that the vapor bath will give signal relief, and if with this a lobelia emetic is administered, the paroxysm may be broken up at once.

Anti-Spasmodic Tincture.- In what is called nervous asthma, it will be found that the anti-spasmodic tincture is an excellent remedy; the dose is half a tea spoonful. The skunk-cabbage, in those cases, is also very applicable.

Prevention.— Asthma is chiefly caused by exposure to wetness and cold, as by going with wet feet, wearing wet or damp clothes, &c. Patients suffering from this distressing complaint, should therefore be careful to avoid exposures in this way. By taking occasionally a dose of the tincture, or oxymel of lobelia, after exposure, the effects may be prevented, or considerably modified.

ACCIDENTAL BLEEDING.

(*Hæmorrhagia Accidentalis.*)

THE treatment of accidental bleeding properly belongs to the province of surgery. But as this work is intended chiefly for the people, who in many instances are compelled by want of information as to these matters, to wait for the assistance of a physician or surgeon, who sometimes has to be brought from a considerable distance, while their friends or neighbors are dying for want of prompt attention, in simple cases that might be relieved by any ordinary person, possessing but a slight knowledge of medicine or surgery, it is designed here to make some remarks on the treatment of such cases.

On the occurrence of accidents or injuries that are attended with much hæmorrhage, immediate efforts should be made to arrest it. Sometimes when the artery does not lie too deep, it may be compressed with bandages, until the inflammatory action (always necessary to the healing process) sets in, when it will no more return.

Styptics.—If the wound be not too deep, cranesbill may be applied in a fine powder; otherwise a very strong decoction may either be injected into the wound, or applied by means of a sponge or rag. The common puff-ball, tannin, bloodroot, scraped horn, matico leaves, juice of green persimmons, white bethroot, fleabane, &c., are all good articles to stop the flow of blood. If the hæmorrhage cannot be restrained by either of the means here recommended, the bleeding vessel must be taken up, and secured by ligature. To do this, in the absence of proper instruments, a common sewing needle should be passed through the mouth of the vessel, and the latter thus raised, so that a silk thread may be firmly tied around it, below the needle. All this may be done with the greatest ease, by any individual of ordinary judgment. The oil of fleabane dropped on the bleeding part, has often restrained the bleeding.

Hæmorrhages in the extremities may always be partially restrained, by elevating the bleeding member higher than the head of the subject.

BLEEDING FROM THE BOWELS.

(*Proctorrhagia.*)

Hæmorrhage from the bowels is not of very common occurrence, except when it arises in consequence of other diseases, as piles, ulcerations of the bowels, dysentery, typhoid fever, &c. Nevertheless instances do occur of spontaneous hæmorrhages from the bowels that is, without the occurrence of any lesion. In these cases the blood exudes through the parites in the same way as occurs in the lungs in passive hæmorrhage, or hæmoptysis.

Treatment.—The use of our most active vegetable astringents are indicated here; an infusion made by scalding an ounce of the powder, of either *cranesbill, matico, white bethroot, witch-hazel*, or even *oak bark*, in a pint of water, and used freely by injection, as well as per stomach, will in general arrest the bleeding in a short time. The astringent tonic compound, prepared as above, is a very good article, and may be employed with confidence. The rubefacient solution, applied with considerable friction all over the body, will be very serviceable; or should this not be sufficient to equalize the circulation, the vapor bath must be applied as warm as it can be borne. Tannin employed topically as well as internally, is an active agent. The dose is three to five grains, taken in water.

Bleeding from Piles.—Bleeding from hæmorrhoidal tumors is very common, and although not very dangerous, it is sometimes very troublesome.

Treatment.—The treatment here, as in other cases of bleeding, consists in the use of astringents, or styptic preparations. A strong infusion of the astringent tonic compound, or any of the simple astringent articles, applied by means of a sponge or cloth, is correct treatment. If the bleeding parts are within the intestine, the strained infusion should be injected by means of a syringe. *Perseverance*, in the treatment, is sometimes necessary.

BLEEDING FROM THE LUNGS.

(*Hæmoptysis.*)

Bleeding from the lungs, although very alarming to some, is not often immediately dangerous; and it is seldom the case, that it arises from a rupture of the blood-vessels. From a morbidly relaxed condition of the parts, the blood in this, as in many other cases of passive hæmorrhage, passes through the delicate textures, in the same way that water is found to permeate soft leather. Hæmorrhage from the lungs, varies considerably in its extent or violence.

"Active hæmorrhage from the lungs, is often preceded by certain premonitory symptoms, such as a feeling of heaviness and lassitude; anxiety; stricture across the breast; short cough; palpitation of the heart; deep and frequent sighing; a deep-seated, pungent, or burning pain under the sternum; slight and creeping chills; cold hands and feet; alternate paleness and flushing of the face; mental and corporal irritability; a quick, small, frequent and corded pulse; and often a disagreeable salty or sweetish taste in the mouth. After these symptoms have continued for a longer or shorter period, the patient usually begins to feel a sense of warmth in the breast, gradually rising up toward the larynx, attended with a saltish taste. Slight coughing now ensues, or an effort is made to hawk, and the blood makes its appearance. In many cases, however, the hæmorrhage comes on suddenly, without any premonitory symptoms whatever. When this is the case, there is commonly but little blood discharged at a time;

but the hæmorrhage is apt to return frequently for several weeks, and even months."

When the bleeding arises from injuries of the vessels, caused by ulcerations in the lungs, or by heavy lifting, violent exercise, blowing on wind instruments, &c., it is always somewhat more difficult to stop immediately.

Treatment. — The indications of cure in this case are to constringe the parts by the use of styptics, to equalize the circulation, and to guard against the recurrence of the symptoms.

Large doses of equal parts of bayberry and capsicum, taken once in eight to ten minutes, will generally be sufficient to arrest the hæmorrhage. In the use of this medicine, we have the advantage, not only of the astringent or styptic properties of the bayberry, but the diffusive and stimulating power of the capsicum is also well calculated to equalize the circulation. Thomson's *composition powders*, in large doses, will answer very well instead of the capsicum and bayberry, and is at the same time more pleasant to take. A strong infusion of cranesbill and white bethroot, in equal parts, or the astringent tonic compound, should be drank freely. Bayberry and sumac berries, steeped in boiling water, so as to form a strong tea, adding a little capsicum and some sugar, will be found very good in bleeding from the lungs.

Bathing the feet in warm water, and using such other means as are calculated to promote perspiration, will be found eminently serviceable; and in difficult cases, even the vapor bath may be necessary to equalize the circulation.

Common *table salt*, taken in tea spoonful doses, dissolved in water, is a very popular remedy in bleeding from the lungs.

An infusion of the fleabane (eregeron canadense) is often found to arrest the complaint.

After the bleeding is restrained, the patient should be careful to avoid exposures, and every other means calculated to favor a recurrence of the bleeding.

BLEEDING FROM THE NOSE.

(*Epistaxis.*)

Bleeding from the nose is not generally regarded as requiring medical attention. But in cases of protracted bleeding, or when the affection (as is sometimes the case) becomes a confirmed habit, the health of the individual may suffer considerably from a want of proper attention.

Bleeding from the nose often attends fevers of the synochal or high grade; and this circumstance has been cited as an argument in favor of blood-letting in fevers, on the ground that it is a natural indication; but this idea is by no means sustained by philosophy. The interior of the nose is not favored with a covering possessing a firm texture, like that of the skin; but it, on the other hand, consists of a very delicate network of vessels. It is very obvious, therefore, that in all cases of high vascular action, as in fevers and violent exercise, these delicate parts will give way, and thus the blood escape. Bleeding from the nose cannot, therefore, be rationally considered any other than a diseased action.

Treatment.—The general treatment in this affection should, in the main, be about the same as that for bleeding at the lungs. The local treatment should consist of the application of cold water to the face and head, snuffing it up the nose at the same time. Decoctions, or strong infusions of the best vegetable styptics, such as *tannin*, *cranesbill root*, *white pond-lily root*, *matico leaves*, *fleabane*, &c., may be taken in proper doses, and also snuffed up the nose. In the selection of these articles, such should be preferred as are the least irritating in their effects. The *powder* of these astringent and styptic articles may also be used as a snuff. If the bleeding parts are not beyond the reach, the common *puff-ball*, if applied, will generally stop the bleeding. The clothing around the neck should always be loose on those persons that are subject to bleeding from the nose.

BLEEDING FROM THE STOMACH.

(*Hæmatemesis.*)

Bleeding in the stomach is generally attended with a small, contracted pulse; palpitation; a pale, contracted countenance; weakness, and a sense of constriction in the breast; extreme anxiety; faintness; and vomiting of blood. The blood thus thrown up is generally of a dark, or black, inky appearance, and is sometimes in coagulated clots.

Treatment.—When there is much sickness at the stomach, the treatment should be commenced by giving an emetic of equal parts of bayberry bark and lobelia; and while this is operating, the patient, if he is able to sit up, should have his feet and legs in a tub of water as hot as it can be borne. In the meantime, strong frictions, with the use of the rubefacient solution, or bathing drops, should be applied. As soon as the stomach is relieved from the accumulating blood, (which, if not removed, will, by its nauseating effects, keep the stomach in a relaxed condition, and thus favor the bleeding,) our best astringents should be used freely, in decoction or strong infusion. The astringent tonic compound is a very good preparation for this purpose; an ounce of it should be scalded in a pint of water, and drank freely when cold. A table spoonful of cranesbill, in fine powder, stirred into a tea cupful of cold water, and drank down at two or three doses, will generally stop the bleeding, especially when combined with a quarter as much tannin. But if the articles here recommended are not at hand, any other good vegetable astringents may be used.

In the treatment of bleeding from the stomach, as well as in any other hæmorrhage, such means as are calculated to equalize the circulation should be early instituted. The vapor bath stands at the head of all these; but this is not often necessary; frictions and rubefacients, together with the foot bath, will usually be sufficient

BLEEDING FROM THE URINARY ORGANS.

(*Hæmaturia.*)

It is sometimes a matter of considerable difficulty to determine whether the blood passing off with the urine comes from the urethra, bladder, ureters, or the kidneys. When the blood is discharged more slowly and constantly, and especially if it is unmixed with urine, and there is no effort to void it, we may calculate that it arises from the urethra. When the bleeding occurs in the bladder, there is generally an uneasiness, and often a pain in the part, more usually in the neck of the bladder; the blood, in this case, comes away with the urine, but still it is not intimately mixed with the latter.

In hæmorrhage from the ureters, or the kidneys, the blood is always uniformly mixed with the urine, giving the whole a bloody appearance. There is, also, most generally, a pain or uneasiness in the region of the kidneys.

Treatment.—In the management of bleeding from the urinary organs, we find large doses of capsicum and extract of bayberry, if often repeated, to answer a very good purpose. The fleabane, witch-hazel, cranesbill, white pond-lily, or, indeed, any other good and active astringent, if combined with a permanent stimulant, will do well.

The bearberry has long been extolled in cases of bleeding from the kidneys. A strong infusion of peach leaves will be found to answer, perhaps, a better purpose than any other single article that can be used for this complaint.

Frictions and rubefacients should be perseveringly used, and even the vapor bath, if necessary. Bathing the feet while internal means are used, is a good practice.

Uterine hæmorrhages are treated on the same general principles that govern our practice in bleeding from the urinary organs, with the addition of astringent infusions or teas to the parts by means of injections.

BOIL.

(*Ferunculus.*)

Boils are very troublesome, inflammatory, hard and circumscribed tumors, that occur in the soft parts on the exterior of the body, and are apt to suppurate. Their character, being so well known, needs no further description.

Treatment.—In the first stages, while the inflammatory action increases, a plaster of fresh turpentine,* and the yolk of an egg, or a poultice made of fine slippery elm bark and lobelia seed, well pulverized, are, perhaps, better applications than any other that can be made. Wheat flour and honey, mixed into a paste, and applied, is highly recommended by some, but is not so good as either of the above.

If these means are instituted early, the tumor may be discussed, and suppuration may be prevented. But should pus be collected, the pain, by lancing the tumor as the matter approaches the surface, may be relieved a day or two earlier than would otherwise happen.

After the boil is open, it should be poulticed with astringent articles. For this, the following is very good:

℞ Astringent tonic compound,	1 part,
Slippery elm flour,	1 "
Ginger,	½ "
Wheat or rye flour,	½ "

Mix up with boiling milk or water, and apply warm. As soon as the core comes away, after washing it well with an astringent wash, the healing salve may be applied, and continued until the sore is healed. During the treatment, the sore should always be well washed with soap suds, at the time of dressing.

Boils, on some persons, are of frequent occurrence, and often two, or three, or even half a dozen, make their appearance at one time, and as they heal up, new ones come on. Such persons need constitutional treatment. A course of laxatives should be instituted. For this purpose, a decoction may be made by boiling together equal parts of yellow dock root, yellow parilla, sassafras bark, and dried May-apple root, in a sufficient quantity of water to cover the ingredients, straining and boiling down to half the quantity, and adding an equal measure of molasses. This should be taken in table spoonful doses, three times a day, or often enough to keep the bowels gently open, until the boils disappear. One or two of the anti-bilious pills, taken every other evening, will do very well to improve the condition of the blood in these cases.

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* If the fresh turpentine cannot be obtained, common turpentine may be softened with the oil or spirits, and thus answer in its stead.

Dr. Thomson recommends the application of turpentine, when the boil first makes its appearance, and states that it soon disperses it.

Pyroligneous acid, applied to a boil in its incipient or forming stage, will often discuss it.

BURN AND SCALD.

(*Ambustum.*)

These accidents are of frequent occurrence, especially among children, and are always troublesome, owing to the excruciating pain that attends them.

Burns and scalds have always been dreaded, not only on account of the pain they produce, but the difficulty that has attended their cure. The reformed treatment has, however, modified the unnecessary fears and anxiety on this score. Burns are now viewed more in the light of a common injury, or wound. Nevertheless, these injuries are still more slow in their recovery than common wounds; for while in the latter there is simply a solution of continuity in the parts, and consequent obstruction of the physiological (*natural*) functions, in burns, besides all this, there is always a deadened state, or destruction of the parts, corresponding with the intensity or character of the injury. Thus in their recovery, *time* is always necessary to restore vitality in the deadened parts, or remove such parts as are entirely destroyed, and supply new.

An idea has obtained among the people generally, that the *fire* is retained in the parts after the accident, and that the smarting and pain peculiar to injuries of this kind, is owing to this circumstance. But this is a mistaken notion, and cannot be sustained by philosophy.

Free caloric (*fire*) is unconfinable in character, and always seeks an equilibrium. Thus the most solid substances, when heated, as for instance a piece of iron, although its temperature may be raised to a red heat, yet it will in a short time be of the same temperature as the surrounding medium. It is evident, therefore, that the fire or heat during the occurrence of accidents of this kind, is not retained long enough to justify the conclusion that it is the immediate cause of the pain. Moreover it is known that the addition of heat, although augmenting it for a few moments, will even favor the early subsidence of the pain; and thus we find the practice common among some people in small burns, in which the experiment is tolerable, to expose the injured part before the fire as near as can be borne, for three or four minutes, when the pain will entirely cease, and return no more.

The pain evidently arises from the injuries that the nerves sustain during the cauterizing (*burning*) process. It seems that the nerves are capable of considerable resistance, and that they retain their sensibility even after some other tissues are broken down or destroyed, and being thus exposed, are subject to causes of extreme irritability.

Treatment.—The irritability, and consequent pain, may be successfully relieved by the application of cold water. If the injured parts be on the extremities, they may at once be immersed into a vessel of water; but if the part cannot thus be relieved, cold water may nevertheless be applied by means of wet cloths, which may be kept cool by the use of a sponge, or by carefully pouring on fresh water occasionally. As soon as the parts remain easy while out of the water, the dressing should be put on, which should be done as follows:

spread on a fine muslin cloth sufficiently large to cover the burn, a coat as thick as a knife-blade, of the following cerate:

℞ Olive Oil,
Flaxseed Oil, (fresh,)
Lime Water, (strong.)
} Equal parts, and mix.

Apply it over the injured part, being careful not to break the blisters unless they are too large, in which case they may be punctured at their margins. Now if it be convenient, a piece of oiled silk may be applied over this first plaster; if not, it may be wrapped up in light cloths, and suffered to remain for at least six hours. This preparation may be continued, until the parts are restored; or it may be alternated or even superseded, by the other articles recommended below. Care must always be taken at the dressings not to break the blisters or to irritate the sores, nor yet expose the latter too long to the air. Sweet oil may be poured over the sore, to exclude the air, and prevent the dresssings from adhering too firmly.

Sweet oil and the balsam of fir, mixed in the proportion of two parts of the former to one of the balsam, forms an excellent liniment for burns and scalds.

Elder bark, simmered in fresh butter for several hours, imparts to the latter a property very soothing and healing to abraded as well as burned surfaces.

Should inflammation set in at any time during the treatment, relaxant poultices must be applied until the inflammation subsides, when the salves may again be applied.

A poultice made of one part of lobelia herb in powder, and two parts of slippery elm flour, is an excellent application for inflamed sores of any kind, and may be used with confidence in these cases.

Should unhealthy granulations, usually called *proud flesh*, get into the sore, they may be removed by sprinkling on them some powdered bloodroot, or burnt alum; or should this not answer, a little caustic potash may be applied to these points. Then after the sore is washed out with soapsuds, or some astringent tea, the salve may be again resumed, or should the poultices be needed, they must be applied.

Should the sore grow foul, it must be corrected by the use of a charcoal plaster, pyroligneous acid, or chloride of lime, which see. If mortification should supervene, the treatment recommended for that, must be instituted.

Internal Remedies.—If the burns or scalds be extensive, internal remedies become necessary. There is always a shivering and trembling, accompanied with difficulty of breathing, experienced by the patient, in severe or extensive burns. To remedy this, a tea made of ginger and skullcap, a tea spoonful of each, scalded in a pint of water and sweetened, or of capsicum and lady's slipper, prepared in the same way, is very good. A half tea spoonful of capsicum, and a tea spoonful of lady's slipper, stirred into a glass of wine, sweetened with loaf sugar, and drank at two or three doses, is also very well calculated to sustain the system under so severe a shock. If there be sickening at the stomach, as is often the case, nothing short of an emetic will relieve it. Some essence of peppermint, or a little vinegar, may, however, sometimes do some good. The bowels should be kept open by mild laxatives or injections.

CANCER.

(*Carcinos.*)

Cancer is a disease that inherited its name from the ancients, who fancied that the large blue veins of the tumor, resembled the claws of a crab. It is likewise called *carcinoma* or *carcinos* by the Greeks, and *lupus* by the Romans, because it eats away the flesh like a wolf. Dr. Cullen defines it, a painful scirrous tumor, terminating in a fatal ulcer. "Any part of the body may be the seat of cancer, though the glands are most subject to it. It is distinguished according to its stages, into *occult* and *open;* by the former is meant its scirrous state, which is a hard tumor that sometimes remains in a quiet state for many years. When the cancerous action commences in it, it is attended with frequent shooting pains, the skin that covers it becomes discolored, and ulceration sooner or later takes place, when the disease is denominated open cancer. Mr. Pearson says: 'When a malignant scirrous or warty excrescence hath proceeded to a period of ulceration, attended with a constant sense of ardent and occasionally shooting pains, is irregular in its figure and presents an unequal surface; if it discharges sordid, sanious, or fœtid matter; if the edges of the sore be thick, indurated, and often exquisitely painful, sometimes inverted, at other times retorted, and exhibit a serrated appearance; and should the ulcer in its progress be frequently attended with hæmorrhage, in consequence of the erosion of blood-vessels; there will be little hazard of mistake in a cancerous ulcer.' In men a cancer most frequently seizes the tongue, mouth or penis; in women, the breasts, or uterus, particularly about the cessation of their periodical discharges; and in children, the eyes. The following description of scirrhus and cancer, from the above writer, will serve to elucidate the subject. A hard unequal tumor that is indolent, and without any discoloration of the skin, is called a scirrhus; but when an itching is perceived in it which is followed by a pricking, shooting, or lancinating pain, and a change of color of the skin, it is usually denominated a cancer. It generally is small in the beginning and increases gradually; but though the skin changes to a red or livid appearance, and the state of the tumor from an indolent to a painful one, it is sometimes very difficult to say when the scirrhus really becomes a cancer, the progress being quick or slow, according to concurrent causes. When the tumor is attended with a peculiar kind of burning, shooting pains, and the skin hath acquired a dusky purple or livid hue, it may then be deemed the malignant scirrhus, or *confirmed cancer*. When thus far advanced in a woman's breast, the tumor sometimes increases speedily to a great size, having a knotty unequal surface, more glands becoming obstructed, the nipple sinks in, turgid veins are conspicuous, ramifying around, and resembling a crab's claw. These are the characteristics of an occult cancer on the external parts; and we may expect the existence of one internally, when such pain and heat as has been described, succeed in parts where the patient hath before been sensible of a weight and pressure, attended with obtuse pain. A cancerous tumor never melts down in suppuration like an inflammatory one; but when it is ready to break open, especially in the breast, it generally becomes prominent in some minute point, attended with an increase of a peculiar kind of burning, shooting pain, felt before at intervals in a less degree, and deeper in the body of the gland. In the prominent part of the tumor in this state, a corroding ichor sometimes transudes through the skin, soon forming an ulcer; at other times a considerable quantity of a thin lymphatic fluid tinged with blood from corroded vessels, is found on it. Ulcers of a cancerous nature discharge a thin, fœtid, acrid sanies, which corrodes the parts, having thick, dark-colored, retorted lips, and fungous excrescences frequently rise from these ulcers, notwithstanding the corrosiveness of the discharge. In this state they are often attended with excruciating, pungent, lancinating, burning pains, and sometimes with bleeding.

"Though a scirrhus may truly be deemed a cancer as soon as pain is perceived in it, yet every painful tumor is not a cancer, nor is it always easy to say whether a cancer is the disorder or not. Irregular hard lumps may be perceived in the breast; but on examining the other breast, where no uneasiness is perceived, the same kind of tumors are often found, which renders the diagnostic uncertain. Yet in every case after the cessation of the catamenia, hard, unequal tumors in the breast are suspicious; nor, though without pain, are they to be supposed indolent or innoxious."

Treatment. — A variety of plans have been proposed, for the treatment of cancer. Alteratives, depuratives, and cathartics, internally; emollients, discutients, and caustics, externally; are among the common means in popular use, for the cure of this distressing complaint. Among the allopathic physicians, excision with the knife is considered the only certain remedy. But unfortunately, in true cancer, the best of treatment has in many instances proved unavailing; even the dreadful operation with the knife, too often fails to confirm the expectations of the unhappy sufferer. If the cancerous disposition of the system is not obviated, or corrected, local means will be of but little avail. The author has known a number of cases of cancer in the female breast, in which the tumor was entirely cut away, and in which the sore no sooner healed, than all the usual and dreadful symptoms of cancer again began to make their appearance.

Constitutional Treatment.—The alterative syrup should be taken three times a day, in such doses as may be agreeable with the stomach. In the meantime, pills composed of equal parts of mandrake, narrow dock, and dandelion extracts, should be used in quantities sufficient to keep the bowels gently open.

In stubborn cases, in which the general system is much affected, the vapor bath may be necessary, and emetics may also prove beneficial.

Local Treatment.—If the treatment is commenced, while the tumor is in the scirrous stage, efforts should be made to discuss it. For this purpose the iodine ointment may be applied with friction over the tumor. If the iodine preparation is not at hand, an ointment made by rubbing together two parts of stramonium ointment with one part of the extract of bitter-sweet, may be used in its stead.

Should this treatment prove unsuccessful, the tumor should be opened by means of the application of a little caustic potash to the crown, or most projecting part. Should the first application of the potash not corrode the skin, it must be renewed when it quits smarting, until the tumor is well opened. During the time the caustic is used, a poultice of carrots, or what is better, one made of the roots or tops of narrow-leaved dock, should be worn over the entire tumor. As soon as the tumor is opened, after washing it out well with soapsuds, or some astringent infusion, the cancer plaster, made by boiling the heads or blossoms of the common red clover, straining and boiling down the liquid to the consistence of syrup, then evaporating in the sun, should be applied and continued (renewing it every day) until the sore begins to discharge healthy pus, when it may be treated with the healing salve, or stramonium ointment, until healed.

The local treatment of an open cancer, after being well cleansed, or washed out, may be commenced immediately with the cancer plaster, and treated afterwards in the same way that is here recommended for cancer in the scirrous state, after it is opened by the caustic.

The sore should be well washed out at least once a day, with a decoction or strong infusion of pipsiswa, beach drops, bayberry, or thoroughwort. After the sore is thus washed out, sufficient pyroligneous acid to wet it all over, should be applied by means of a soft brush.

The following treatment of cancer is very similar to a recipe that the writer finds in his Journal, which was formerly known as "*Thom. Runnell's Cure for Cancer.*" This plan of treatment has of late gained considerable popularity in this part of the country, in the hands of a certain Mr. White, who has repeatedly (as the author is informed) sold the recipe for two hundred dollars; at the same time binding the purchaser not to divulge the secret, under a heavy penalty. As this treatment has proved very successful in the hands of a friend of the author, he has thought it advisable to publish it, although it embraces several objectionable articles; yet as they are not to be employed internally, they are not so likely to do mischief.

If the cancer be in the scirrous state, and cannot be discussed by proper treatment, it should be opened with potash or any other good caustic, and the integuments (skin) carefully removed. The tumor is now ready to be treated the same as an open or running cancer. This is commenced by the application of a plaster made by melting together equal parts of rosin, beeswax, and mutton tallow, adding sufficient sulphate of copper (verdigris) to give to the plaster a deep green color. The plaster should be spread on a linen cloth having a hole cut into its centre, corresponding with the size of the opening in the tumor, and laid on so as to expose the open part. A few grains of the sulphate of zinc, (white vitriol,) should now be sprinkled over the surface of the exposed part, and repeated three times a day, until the whole tumor comes out in a dead black mass, or all the unhealthy parts are sloughed off. When the sulphate of zinc is applied, the opening should always be covered over with a plaster of the same kind as before. When the tumor is thus destroyed, the sore should be healed up as above directed. During the whole of this treatment, proper constitutional treatment must not be neglected.

CARBUNCLE.

(*Anthrax.*)

A CARBUNCLE is a hard and circumscribed inflammatory tubercle, like a boil, usually occurring on the face, neck, or back, and is much disposed to terminate in mortification. These tumors are exceedingly painful, and discharge very fœtid, bloody matter. In the centre of the tumor is a black core, which has been likened, by the ancients, to a burning coal consuming the surrounding parts, and hence its name.

Treatment.—Caustic potash should be applied, by means of a pencil, over the crown of the tumor, and then a poultice of lobelia seed and slippery elm should be laid over the whole tumor, and suffered to remain for five or six hours. If, on the removal of the poultice, the sore should present a healthy appearance, the poultice may be discontinued, the sore dressed with salves, and treated in other respects like an ulcer. But until the tumor presents a healthy appearance, the use of the potash should be continued at each dressing. Should mortification set in, it must be treated as recommended under that head.

A plaster of fresh turpentine worn over the tumor at the onset, will sometimes disperse it, or, instead of this, cloths kept wet with spirits of turpentine, applied to it, will do well.

CHICKEN-POX.

(*Varicella.*)

THIS disease, unlike small-pox, is seldom attended with much fever, and hardly ever continues more than from one to four days before the versicular eruption, which usually comes out first on the breast and back, makes its appearance. An unpleasant tingling or itching in the skin, generally accompanies the eruption. The vesicles usually come out in succession, during three or four days, so that, at the same time, some will be just appearing, while others are matured and drying into scabs. The eruption of chicken-pox varies somewhat in appearance, and hence the affection has inherited the names *Cuticular* or *Conoidal Varicella*, and *Swine-Pox*. Chicken-pox very seldom makes its appearance more than once in the same individual.

The diseases which this resembles most, are small-pox, and varioloides or modified small-pox. From the first of which, it may be distinguished by the comparatively slight fever, by the eruption appearing first on the back, and by the comparatively short duration of chicken-pox. From modified small-pox or varioloides, it is more difficult to be distinguished. It may be observed, however, that the eruption of varicella is more vesicular, having quite a bladder of water on the crown of the pustule, which is nearly transparent at first, but subsequently assumes a sero-purulent character, while those of varioloides are more pustular, and commonly depressed in their centres.

Treatment.—Chicken-pox usually passes off without making medical treatment necessary. But when it is thought advisable to do something in this way, some mild detergent and diaphoretic preparations, such as pennyroyal, saffron, catnip, or thoroughwort, may be used in the form of a tea, bearing in mind, also, the importance of keeping the bowels open by the use of aperients or laxatives. If, however, there should be much fever, one grain of each of the extracts of mandrake and black cohosh may be given every two hours until a cathartic effect is produced.

CHILBLAIN.

(*Pernio.*)

CHILBLAINS are sores arising, as is supposed, from freezing or the effects of cold, and are most apt to affect the feet, particularly the heels and toes. The parts affected have a purplish or red color, and are, most generally, somewhat swollen. At times, the diseased parts itch intolerably, especially when warmed by the fire. The parts, if neglected, are apt to ulcerate, and thus become very troublesome.

Treatment. — The difficulty, when of a slight character, may be removed by bathing the feet every evening before going to bed, in fresh, cold water, and after wiping them dry, rubbing on a little of the bathing drops. Should the parts be much inflamed, and sore, they should be poulticed with slippery elm and ginger. When they ulcerate, they must be treated as directed for ulcers.

A wash, made by submitting some of the astringent barks, as oak and hemlock, to decoction, and applying frequently, will be found of great service in any stage of the disease.

White lead in flaxseed oil, has been found a good plaster to be worn over frost-bitten parts. It relieves the smarting, and heals the sores.

CHOLERA.

History. — Although this disease has been more alarming and fatal in its progress than any other that we have any knowledge of, still its essential character and true origin is yet entirely unknown. In 1600, 1629, 1669, 1676, 1696, 1730, 1741, 1750, 1780, 1782, 1783, 1787, and in 1790, as well as at other times, a disease prevailed in different parts of Asia, whose symptoms and mortality were similar to the present cholera. Its commencement, however, is generally dated 1817, when, on the 19th of August, it broke out in the city of Jessore, in Hindostan, and in two months from its first invasion it destroyed more than ten thousand persons in that single city, and in that same year its victims were not less than six hundred thousand. From Jessore it spread along the principal rivers and great roads with considerable uniformity, until it had crossed the Indian peninsula, and broke out at Bombay, about a year from its appearance at Jessore. For a few years after this, the disease did not extend farther westward, but continued its ravages in the oriental countries, and carried off its thousands annually. In 1821, it appeared in Arabia; then, taking a north-western direction through Persia, reached Astracan, at the mouth of the Volga, in 1823. During the succeeding year, the cholera was more mild, and was confined to the eastern parts of Asia; but it resumed its violence in 1825, and spread its ravages through most places in eastern Asia where it had appeared before, but particularly in the Birman empire, and extended north toward China. In 1826, it continued its northern direction, crossing the great wall of China, visited Kukuchoton, and penetrated from Kiachta to the centre of Asiatic Russia; and in 1829, it crossed the Ural mountains, and made its appearance in European Russia.

Its ravages were experienced in most of the large cities of Central Europe in the summer of 1831. It advanced from Archangel westward to St. Petersburg, and along the coast of the Baltic to Poland; thence to Prussia, Austria, Hungary, and Turkey. In October, it crossed over to England, appearing first at Sunderland, then at New Castle, Gateshead, and finally in Scotland. In 1832, it appeared successively in the cities of Edinburg, London, Paris, and Dublin.

In June of the same year, it made its way to America. On the 8th, it appeared at Quebec, and in less than a week at Montreal. In the same month it reached New York, Albany on the 3d of July, Detroit on the 5th, Buffalo on the 17th, and, soon afterward, Philadelphia, Boston, Baltimore, Cincinnati, New Orleans, &c. During this season and the following year, most of the southern and western towns, and even country places, were visited, and in many places with great mortality—often from one hundred and fifty to two hundred deaths per day in a single city.

In the year 1849, it again made its appearance in the United States, and seemingly with no less violence than before. At this time, its direction was from south to north, but was much confined to water courses and other prominent public thoroughfares. New Orleans, Mobile, Memphis, St. Louis, Louisville, Cincinnati, Columbus, Sandusky, Cleveland, Buffalo, and New York, were successively visited by this dreadful scourge, and in every place it gave sad evidence that its violence is not less than it was at its former visit. This year (1850) has also been fruitful in the work of death by this terrible disease in our country, more especially in the southern portions.

It appears that the cholera has prevailed in some parts of the world every year since its commencement, but has been mostly confined to India or South-eastern Asia.

Cause.—The great mortality and extensive prevalence of cholera, moving its dark shadows at all seasons and in every direction, in defiance of all natural or artificial barriers, under opposite extremes of temperature and climate, in the face of adverse winds, over lofty mountain chains, across wide seas, and among all nations, and in every class of society, may well excite the curiosity and solicitude of community in reference to its cause.

Many consider cholera contagious, and offer the following arguments:

1. The disease was originally imported from Jessore into Calcutta and other places of Bengal in 1817.

2. It has always followed the great thoroughfares or commercial routes, and is carried by caravans, armies and common emigrants; that individuals have been known to go from places where the disease was, into healthy parts, and were taken sick of the disease shortly on their arrival, or even before; and that their nurses or attendants were also taken; and thus the disease was spread.

3. In places where sanitary measures were adopted, the cholera has been prevented.

But, in connection with these statements, it must be remembered, that cholera has occurred under circumstances in which there was no chance for contagion, thus showing that in some instances, at least, it is found to be a spontaneous disease. Again it must be observed, that there are other coincidents besides contact, which occur on the occasions when contagion is supposed to produce it. When, for instance, the disease breaks out in a city or ship, all the occupants are surrounded by the same circumstances—the atmosphere, compactness of habitation, and temperature; and the *incidental* circumstances of exposure operate alike on all. Besides, the fear produced by the disease, and the want of proper attention and cleanliness, may also serve, in no small extent, to give it an epidemic character.

There are other facts, moreover, which go far to prove that cholera is propagated by the atmosphere, or is occasioned by peculiar conditions of it. It is stated that the districts where cholera prevails are deserted by the birds. Martins have been declared even to have abandoned their young in the nests to escape from the affected districts. It has also been observed, that when cholera prevails, it is always accelerated in rainy or damp weather, and is more prevalent in summer than in winter seasons.

Indeed, it is almost certain that the cause of cholera is involved in certain peculiar atmospheric conditions; but what these are, has not yet been demonstrated. The atmosphere is a substance that is very capable of absorption, and may readily imbibe principles offensive to human breath.

It has been contended that the air in the affected districts is contaminated by myriads of animalculæ, of dimensions so extremely small that they are invisible to the naked eye, but that by means of a microscope they may be detected; and that these, being inhaled in the process of respiration, produce the disease. But this theory is now nearly exploded.

A principle denominated ozone, and which is produced by means of electrical phenomena, has also been declared as the cause of the disease; but this hypothesis has been alike unfortunate as the animalculæ theory.

The labors that have been bestowed to detect an ethereal cause for cholera, have, perhaps, not been directed in the right way; for, although it may be found that a foreign principle may be contributary, still, other circumstances may also be necessary, the coincidence of which may be the cause of the disease. Among the circumstances that are worthy of consideration in this respect, is the excess of nitrogen in the composition of the atmosphere. The results of the variation of the two constituents of the air on the opposite scale, are remarkably different, and it is certainly not presuming too much to suggest that a deficiency of oxygen may have something to do in procuring the conditions necessary for the disease.

Symptoms.—The symptoms of cholera are, in the main, nearly the same in all countries, consisting of diarrhœa, vomiting, cramp, pain in the stomach, and a rapid failure of strength. Sometimes there are some premonitory symptoms, such as a sense of languor, giddiness, and distension and rumbling of the stomach and bowels. But most commonly the patient is unconscious of anything wrong, until a slight diarrhœa, which may have existed without occasioning any particular notice for a day or two, becomes more urgent; the passages become more frequent, greater in quantity, and pass off with more force. Their consistence, at first, is not different from those of a common diarrhœa; but as the disease progresses, they become more watery or thin, but not generally much offensive to the smell, unless the disease is complicated with other morbid habits that occasion it. The discharges, in appearance, have been likened to rice-water, or a solution of soap in hard water, presenting a whitish or sometimes clear fluid with flocculent matter floating in it, and which is discharged without much griping; sometimes bile is also mixed with the discharges. At this stage the patient is brought to a consciousness of his danger, by sickness at the stomach, and vomiting, attended with cramp, generally first in the hands, arms and legs. A pressing thirst and violent pain or sense of burning in the stomach soon come on, and as the evacuations increase in frequency the patient begins to sink rapidly. The discharges from the stomach have much the same appearance as those from the bowels; sometimes they are also mixed with bile; and from the presence of this in the discharges, the disease received its name, *cholera*, from *chole*, bile, and *reo*, to flow, under the impression that this is essentially a bilious disease.

As the disease advances, the symptoms become more pressing, the discharges are often as frequent as once in five or ten minutes; the sickness and irritability, pain and burning sensation in the stomach, are constant, and occasion a pressing thirst for cold or even ice water, which, as well as all other drinks, are generally thrown up the moment they are taken.

The pulse is usually slow and weak, but sometimes quick and small; the extremities are cold and shriveled, as if they had been immersed in warm water; the eyes are sunken, and surrounded by a dark circle; the face is generally deathly pale, but sometimes dark colored and even purplish or black, owing to a want of proper oxydation of the blood. When these symptoms appear, the last stage, called *collapse*, takes place, in which the patient sinks into a quiet depression of all the animal powers; the body shrinks or collapses, and although the patient is generally rational, and talks sensibly to the last, yet it may plainly be seen that death is rapidly doing his work, and it is very rare, indeed, that a patient recovers after collapse has fully set in.

The symptoms of cholera are generally about as given above, and it is seldom that a genuine case occurs without the appearance of most of them; but it occasionally happens that the order of their appearance varies; thus, the cramp may appear first, or the vomiting, and the diarrhœa last. But cases have been known in which there was no cramp, and others in which there was but little purging or vomiting; but the vomiting, purging, and cramp, are generally considered the characterizing symptoms.

The duration of the disease is generally about twenty-four hours, but sometimes destroys life in one or two hours; while, on the other hand, it has been known to continue, though more mildly, for even a week or more, sometimes being nearly or entirely arrested, and then commencing again on slight exertion, or on taking improper food or drink.

Persons having had the disease once, are supposed to be more liable to be attacked again than others, especially during the same season.

Treatment.— Success in the treatment of cholera is very much dependent upon early means; and in no disease are delays so dangerous as in this. The simple diarrhœa, or first stage of cholera, is as easily arrested as almost any disease. Some simple astringent drink will often arrest it at once, and if this should not be sufficient, the aromatic stimulants, combined with more active astringents, will seldom fail.

To arrest the diarrhœa, the following has proved more successful in the author's hands, than any preparation he has known to be used:

℞ Carbonate of Ammonia,	Equal parts.
Camphor,	
Extract of Bayberry, (dry,)	
Black Pepper.	

Pulverize finely and mix. The dose is from four to eight grains, repeated after every alvine discharge.

To promote the good effects of the above, and to obviate the spasm, the following should be given:

℞ Oil Hemlock,	1 ounce,
Oil Cajeput,	1 "
Gum Guaiacum,	1 "
Camphor,	1 "
Geranium, Mac.,	1 "
Cinnamon,	1 "
Ginger,	1 "
Black Pepper,	1 "
Best Brandy,	4 pints.

Pulverize the dry articles, and digest in the brandy for six days, shaking frequently; pour or strain off the tincture, and then add the oils and shake well. Of this the dose is from a tea spoonful to a table spoonful, every twenty or thirty minutes, according to the urgency of the symptoms.

If the cramp should be severe, the surface may be rubbed briskly with the hand, endeavoring to grip the contracting muscles firmly with the fingers, while applying gentle traction toward the extremities. A liniment:

℞ Oil Hemlock,	2 ounces,
Oil Cajeput,	1 ounce,
Oil Lobelia,	⅓ "
Hog's Lard,	4 ounces,

well mixed, and applied with the hand, will be very serviceable in relieving the cramp.

It should be borne in mind that all spirituous or aqueous washes are very mischievous, as the evaporation that they produce will promote rather than arrest cramp, and should therefore always be avoided.

The nausea and vomiting will generally subside on the application of this treatment; but if not, it may sometimes be relieved by an infusion of the common diaphoretic powders, sweetened, taken repeatedly in small doses. But should this prove unavailing,

℞ Oil of Peppermint,	1 drachm,
Oil of Lobelia,	½ "

mixed, may be given in from five to ten drops, once in ten or fifteen minutes. Sometimes this will quiet the stomach immediately, but must, in many cases, be continued until the full operation of emesis is produced.

A mustard plaster applied over the region of the stomach, is an excellent means to check the vomiting, and should not be neglected in bad cases.

In cases of collapse, the remedies must be still more powerful:

℞ Oil Hemlock,	1 ounce,
Oil Cajeput,	1 "
Camphor	1 "
Guaiacum, (gum,)	½ "
Best Brandy,	8 ounces.

Pulverize the guaiacum, and digest in the brandy for three days, and strain, or pour off the tincture; dissolve the camphor in the oils, add the whole together, and mix well. The dose of this is from one to two tea spoonfuls, once in ten or fifteen minutes, well shaken before using. The same is to be administered by injection, in portions of one table spoonful, shaken with some warm water and molasses or slippery elm mucilage, repeated as occasion may require.

The liniment, with brisk friction over the surface, are also important means in this stage of the disease.

Dry heat to the extremities, as by means of bottles of hot water or hot bricks, will be serviceable in our endeavors to procure reaction.

Regimen. — The diet during recovery, should consist of articles easily digested, and such as do not require large quantities, and which, moreover, do not readily ferment or spoil by keeping. Dried beef, boiled soft, and spiced with black pepper and allspice, or summer savory, is an excellent dish for cholera patients. Wild game, as squirrels, venison, &c., is also good. When the digestion has improved, sugar-cured ham, and mackerel, are admissible, if properly prepared. With some persons fresh meat, especially veal, is very bad in hot weather, and almost certain to bring on diarrhœa. In other cases fresh vegetables, as cabbages, peas, cucumbers, beans, &c., are most mischievous; but much is dependent upon the former habits of the patient; if he has been accustomed to fresh meat, it is best to continue its use, being particular to use only the best kinds; and this may also be said of vegetables.

Prevention. — A large portion of the community, and even physicians, have been in the habit, during cholera seasons, of taking drugs, under the idea of fortifying themselves against the disease; and it is really amusing to see what a variety, and even opposite kinds of agents, are employed for this purpose.

Without intimating that there are no prophylactics against cholera, it may be observed that much mischief has been done by the indiscriminate use of drugs for this purpose. In the first place, many poisonous agents have been taken, which have tended only to impair the constitution, and thus, instead of warding off the disease, have really favored the attack. Besides, even when good medicines are taken in case of health, the constitution, becoming accustomed to the action of these agents as extraneous substances, it will be certain that when given afterward in real need, they would be of far less service.

But it is nevertheless necessary that some precaution should be observed, in seasons when there is cholera threatened. The digestion should be kept in a healthy state, the bowels regular, the skin clean and active, the clothes pure, and the food regular and wholesome. *Medicines* should be taken to *cure*, and *regimen* to *prevent* disease.

Above all things the mind should be tranquil and fearless, as nothing disposes us more to the attack of cholera than fear. Indeed, there is not the slightest doubt, that fear has caused more cholera than contagion.

But these remarks, it is hoped, will not have the effect of inducing an indifference, which will lead to a neglect of an early attention to the premonitories, or incipient stage of the disease; but that on the other hand, they will be of real service to families, in directing them to the proper means, not only of preventing cholera, but of curing it when it may have set in. It is certain that there is no disease, against which community have greater reason to be always fortified, than this; and we know of no means that will act a better part, than a good and faithful treatise on it by a scientific and experienced person, as there cannot be the shadow of a doubt, but that the want of a knowledge among the people, of the true character of the disease, has had a larger share in spreading it and fixing its mortality, than any other means.

CHOLERA OF CHILDREN.

(*Cholera Infantum.*)

Children are frequently much troubled with vomiting and purging, particularly during the time of teething. The discharges are generally thin and watery, sometimes bilious. There is usually more or less fever and emaciation. The disease often assumes a chronic character.

Treatment.—In ordinary cases the disease may be checked, by giving half a tea spoonful of the neutralizing mixture every hour, until a slight cathartic effect is produced. But if the stomach is very irritable, and there is much vomiting, the treatment should be commenced with the exhibition of a lobelia emetic. During, and after the operation of the emetic, mild diaphoretic tea, sweetened and creamed, should be given in suitable doses every half hour, until it relieves the bowels, when, if the looseness is not checked, some astringent tea should be given per stomach, and by injection.

The first formula recommended in the treatment of the foregoing disease, is also very excellent here. The dose is one grain or less, according to the age of the child, this being proper for a child one year old. The medicine should be repeated every time the bowels are moved.

CHOLERA MORBUS.

Symptoms.—Violent vomiting and purging, with cramp in the bowels, and muscles of the legs; discharges mostly thin and watery, and often mixed with bile; the extremities are mostly cold, and the pulse weak and irregular. Cholera morbus is a violent disease, and often terminates fatally in ten or twelve hours.

Treatment.—For cholera morbus, the same treatment recommended for the Asiatic cholera, is, perhaps, as good as any other that can be adopted for this complaint, which is very analogous to it in all its symptoms. In cases of great irritability of the stomach, it happens sometimes that nothing will answer better than fine charcoal in milk, taken frequently in small doses. But if this will not give relief, a mustard plaster should be applied over the region of the stomach.

CONSUMPTION.

(*Phthisis Pulmonalis.*)

CONSUMPTION of the lungs is one of the most prolific sources of mortality to the human race. It has been estimated that in Europe one-fifth of the annual number of deaths, takes place from this disease; and we have woeful evidence that the proportion is not much less in America.

In New York, the average number of deaths by consumption, is computed at two hundred and forty-three in a thousand, which is nearly one-fourth. The city inspector, in his report for the year 1839, makes the whole number of deaths seven thousand nine hundred and fifty-three, of which one thousand three hundred and fifteen died of consumption, four hundred and sixty of inflammation of the lungs, thirty-six of inflammation of the chest, twenty-eight of bleeding from the lungs, twenty-eight of congestion of the lungs, and seventy-two of bronchitis; total, one thousand nine hundred and thirty-nine.

Various morbid conditions of the lungs, as well as other contiguous organs, are known to the people under the name of *consumption*. Ulcerations of the larynx and trachea, as well as inflammation and serous effusion, or ulceration of the pleura, &c., are most generally confounded with true consumption of the lungs. Yet real consumption, as discovered by *post-mortem* examinations, evinces several modifications in the diseased conditions of the lungs. Thus we have the *imposthumous* variety, or consumption from abscess of the lungs, (which has been erroneously considered the most common kind,) the *granular*, or that variety arising from the formation of an immense number of granulations, of about the size of a millet seed, or larger, and finally the *tubercular*, or consumption arising from tubercles in the lungs. This last is the most unmanageable and fatal form of consumption. The tubercles at first are small, and sometimes many in number, but as the disease advances, they enlarge, and us adhere together. Sooner or later, these tubercles commence softening in their centres, and are finally converted into a cream-like matter, which is either absorbed, or continues to accumulate until it finds its way into the bronchia, or air tubes of the lungs, when it is carried off by expectoration.

Symptoms. — Among the first signs of consumption, are increased sensibility to the effects of cold, slight and transient pains in the breast or side, a feeling of soreness in the lungs, and a short dry cough. As the disease advances, the cough increases, and is accompanied with expectoration of phlegm or mucus. There is more or less fever through the day-time, and sweating at night. Usually, there is also a burning sensation experienced in the palms of the hands and soles of the feet, and generally the patient wears a marked blush on the prominence of the cheeks. There is in this stage an extreme liability to catarrh, on the slightest exposure to cold or damp air.

In the confirmed stage of consumption, the fever assumes a hectic form; the sweating at night becomes more profuse and clammy, and the patient becomes considerably emaciated. The matter thrown up from the lungs, consists of pus mixed with mucus, which is sometimes streaked with blood.

In the last stage of this complaint, all the symptoms become more aggravated, the strength fails rapidly, the emaciation becomes extreme, the cough very distressing; the pulse, during the fever, sometimes as high as one hundred and thirty; the voice is hollow or sepulchral, dropsical symptoms set in, and finally the patient is either carried off by a colliquative diarrhœa, a hæmorrhage from an ulcerated vessel, or sinks gradually under the weight of the disease.

A remarkable circumstance peculiar to consumptive habits, is the singular confidence and hope of recovery, that the patient evinces, even sometimes in the very last stage of the disease. Some patients are even offended with their friends, when it is urged by them that their health is declining.

Cause. — "The causes which predispose to this disease, are very numerous. The following are, however, the most general: hereditary disposition, particular formation of the body, obvious by a long neck, prominent shoulders, and narrow chest; scrofulous diathesis, indicated by a fine clear skin, fair hair, delicate rosy complexion, large veins, thick upper lip, a weak voice, and great sensibility; certain diseases, such as syphilis, scrofula, the small-pox, and measles; particular employments, exposing artificers to dust, such as needle-pointers, stone-cutters, millers, &c., or to the fumes of metals or minerals, under a confined or unwholesome air; violent passions, exertions, or affections of the mind, as grief, disappointment, or close application to study, without using proper exercise; frequent or excessive debaucheries, late watching, or drinking freely of strong liquors; great evacuations, as diarrhœa, diabetes, excessive venery, fluor albus, immoderate discharges of the menstrual flux, and continuing to suckle too long under a debilitated state; and lastly, the application of cold, either by too sudden a change of apparel, keeping on wet clothes, lying in damp beds, or exposing the body too suddenly to damp air when heated by exercise; in short, by anything which gives a considerable check to the perspiration. The more immediate or occasional causes of phthisis are, hæmoptysis, pneumonic inflammation proceeding to suppuration, catarrh, asthma, and *tubercles*, the last of which is by far the most common."

Treatment.— It has been remarked in the description of this disease, that it consists of several varieties; it may result from pneumonia or common inflammation of the lungs, or the inflammation of granular or tubercular formations in the lungs. The treatment, therefore, must be made out in reference to these facts.

In the imposthumous variety, which is not dependent upon a predisposition to the disease, it may only be necessary to keep the general system in a state favorable for the healing process, and keeping up a steady termination to the surface, as by the use of the extract of asclepias tuberosa, acetate of ammonia, or other good diaphoretics, which do not excite the circulation too much; while the cure may be completed by the use of mild expectorant and balsamic preparations, as the expectorant syrup.

The tubercular variety is far more difficult to manage. This is generally dependent upon hereditary taint, or a scrofulous or general cachectic habit of the body, and unless the general diathesis is changed, it will be impossible to effect a cure.

The constitutional means must be directed to the purpose of changing the secretions, which are always more or less impaired. The alterative syrup is perhaps the best medicine for this purpose. The Shaker sarsaparilla, which is made according to the authority of the United States' Dispensatory, is also a good alterative for this purpose.

The special treatment must be regulated according to circumstances. In the first stage, before the hectic fever and the colliquative night sweats set in, the treatment should consist of repeated emetics, and the occasional use of the vapor bath. The emetics may be composed of equal parts of lobelia and sanguinaria. If the emetics are immediately preceded by the bath, they will be far more beneficial in their effects.

This course must be repeated as often as once or twice a week, until the symptoms are improved, when an occasional emetic will perhaps be sufficient.

The intermediate treatment, in addition to the alterative syrup, must depend upon the symptoms. Should there be irritation of the lungs, and hacking with little expectoration, the skunk cabbage (ictodes fœtida) will be serviceable:

℞ Botrophin,	10 grains,
Lobelia,	20 "
Ictodes fœtida,	1 drachm.

Pulverize and mix. The dose of this is ten grains, or about half a tea spoonful, repeated once in three or four hours, or according as the symptoms may indicate.

When there is a disposition to fever through the daytime and sweating at night, the acetate of ammonia should be employed in tea spoonful doses, once in two hours during the fore part of the day, and a dose or two of the elixir of vitriol in the evening.

The expectorant syrup should be taken in full doses three or four times a day throughout the treatment, unless contra-indicated. This preparation combines the virtues of a tonic, expectorant, and a healing balsam, and will seldom fail to give satisfaction.

In the last stage of consumption, when the hectic fever and night sweats have set in, and the matter expectorated consists mostly of pus, the treatment should be somewhat modified. The vapor bath and all directly relaxing means are now improper, as they favor the debility, and enhance the tendency to the colliquative night sweats.

Instead of relaxants, a tonic and stimulating course is now indicated, in connection with occasional emetics, composed of equal parts of ipecacuanha, sanguinaria, and lobelia.

Emetics are particularly serviceable in this disease, not only because they keep the stomach in a good condition, and promote a healthy state of the secretions, but their effect upon the nervous system is no less important. On this point some of the most respectable testimony of the profession might be produced. The nervous power is the principle on which depend all medical cures, and any agents that tend to maintain or exert a healthy influence directly upon the nerves, are among our most important means in consumption.

The botrophis racemosa has proved itself of peculiar value in the treatment of this disease, and although it is comprised in the formula already recommended in this case, yet in some cases when our suspicions of the presence of tubercles are confirmed by the symptoms, the medicine may be given also in the form of extract, or that of the *botrophin*.

Incidental remedies are rendered necessary chiefly by the occurrence of diarrhœa, hæmorrhage, palpitation of the heart, difficult respiration, profuse night sweats, pain in the chest, &c.

The diarrhœa may readily be restrained by a powder composed of extract of bayberry, camphor, and carbonate of ammonia, two parts of the first and one of each of the latter, well pulverized and mixed. The dose is three to five grains; one or two doses are usually sufficient.

The hæmorrhage must be arrested by the means recommended under the head of bleeding from the lungs, or hæmoptysis.

Palpitation is relieved by the use of the extract of cypripedium, or the etherial tincture of English valerian, or an occasional pill of assafœtida. These remedies will also usually relieve embarrassed respiration.

To obviate the night sweats, a cold infusion of wild cherry bark should be taken in the fore part of the day, and one or two doses of the elixir of vitriol in the evening.

The cod-liver oil has been highly esteemed by many eminent physicians, as a remedy in tubercular consumption.

CORNS.

(*Clavus.*)

CORNS are roundish, hard or horny extuberances in the *cutis* or outer skin, situated on the joints of the toes, and other parts of the feet that are much exposed to friction and pressure.

Treatment. — As the difficulty is obviously caused by tight shoes, the remedy readily suggests itself—*wear loose shoes.* The cure may, however, be facilitated by immersing the feet in warm water with some ashes, until the corns are softened, when they should be raised out with the point of a penknife. The toe should now be wrapped up with a piece of soft bladder or suet skin, dipped in rattlesnake's oil, or any other soft oil. But unless the precaution of wearing loose shoes be observed, it will be in vain to expect a cure of corns.

COSTIVENESS.

(*Constipation.*)

CONSTIPATION of the bowels, although a common affection, seldom occurs without the existence of some other derangement. It most commonly attends inflammatory affections of the liver, brain, stomach, and bowels, and it is one of the marked symptoms of dyspepsia.

Among the most common symptoms, collateral with constipation, are sickness at the stomach, want of appetite, flatulency, headache, fever, general dullness, and dejection of spirits.

Treatment.—Constipation will be found, generally, to yield to the appropriate treatment of those diseases that give rise to this complaint. But in confirmed cases, however, it becomes necessary to do something that is more directly calculated to relieve this state of the bowels. For this purpose, whatever can be effected by way of dieting, should be done; for it is not a good practice to use much cathartic medicine for this purpose. Most articles of this class are apt to leave the bowels in a condition little better than they find them. Moreover, purgative medicines, if much used, are almost certain to injure the digestive organs, and thus they ultimately very much increase the difficulty. In mild cases, the patient will generally be able to keep the bowels in a proper condition by the use of ripe, juicy fruit, such as peaches, &c. The Graham or unbolted bread is also eminently adapted to costive habits. With some, *potatoes*, if used once or twice a day as food, will keep the bowels in a free and healthy condition. Pepper sauce, used at the table, will be found serviceable to those troubled with weak digestive organs.

In obstinate cases, a more active course will some times be required. The bowels should, in the first place, be moved by injections made of the laxative bitter tonic, with the addition of a small portion of capsicum; they may then be restored to their healthy action, by the use of the extract of bitter-root (*Apocynum*

Andro.) But should this not be sufficient, pills composed of equal parts of capsicum and the alcoholic extract of mandrake, taken every evening, in doses of from one to two, will soon bring the bowels in a soluble and free condition. The patient may then gradually leave off their use, and follow with the use of bitters that are slightly laxative.

COUGH.

(*Tussis.*)

Coughs are of very common occurrence, and generally caused by colds; but are sometimes a symptom of a more serious complaint, such as consumption, disease of the liver, pleurisy, &c. In some instances the cough is dry, but in others it is accompanied with an expectoration of matter. Coughs are not generally much regarded, unless they are severe, or of long standing. But this neglect is sometimes attended with mischief.

A spasmodic and contagious cough, called *Hooping Cough*, is common among children, which will be treated of under another head.

Treatment. — The disposition to cough arises from irritation in the air passages of the lungs. This irritation is caused by the collection of matter that is inimical to the parts; and hence the propriety of using such remedies as are calculated to promote the expectoration or removal of the offending materials. For this purpose, either of the expectorant preparations, recommended among the compounds, may be used. When the cough is very severe and harassing, an emetic of lobelia or a vapor bath may be necessary, in connection with the other remedies, to relieve the cough. The foot-bath, and any other means calculated to relax the system, will be found serviceable.

The oxymel of lobelia, recommended in asthma, is an excellent remedy in nervous cough.

CRAMP.

(*Spasmus.*)

CRAMP is a very painful affection, but is not generally dangerous. It usually affects only a part of the body at a time, as, for instance, a leg, foot, the fingers, stomach, &c. The affection consists of a spasmodic contraction of one or more muscles of a part, thus forcibly drawing the part out of the natural position, thereby causing extreme pain. When the cramp or spasm is attended with rigidity or permanent tensity of the muscles of most of the body, the affection is called *tetanus;* and when this affects only the muscles of the jaws, *trismus*, or locked-jaw, which will be treated of under a different head.

Treatment.—Friction, if rapidly applied to the affected muscles, will generally give immediate relief. Cramp may also usually be relieved by contracting the muscles antagonistic to those affected.

If medicine should be required, a good dose of the nervine tincture, or of the anti-spasmodic tincture, will generally give relief in a short time. Tincture of camphor, assafœtida, or capsicum, will generally answer very well. In violent cases, if the cramp should not yield to the means here recommended, the tepid or vapor bath should be applied in addition. Persons that are much troubled with cramp, should avoid exposure to wet and cold, and should occasionally drink of a tea of blue cohosh, skull-cap or valerian.

CROUP.

(*Cynanche Trachealis.*)

THE croup is an inflammatory affection of the mucus membrane of the trachea or windpipe, which is attended by a secretion of very tenacious coagulable lymph that lines the windpipe and sometimes also the bronchia or air-cells of the lungs, and thus impedes the function of respiration or breathing. In some instances, the breathing becomes very difficult, and is attended with a crouping noise; hence the name of the disease.

The disease chiefly attacks young children, yet it is occasionally met with among those as old as twelve and fourteen, and it is said that even adults have been known to have it. Its attack is sometimes very sudden,—young children sometimes die from it within six or eight hours.

Symptoms.—Some days previous to an attack of croup, the child will be fretful, and at times drowsy and inactive; the eyes are somewhat suffused and heavy, and there is a cough which from the first has a peculiar shrill sound. As the disease advances, the cough increases in violence, and respiration becomes more difficult; the face is flushed and swelled, the pulse frequent, and the skin hot. At length the obstruction in the trachea becomes so great, that the patient labors convulsively for breath, and occasionally, during the fits of coughing, will perhaps throw up detached pieces of the *false membrane;* the face turns purple or black; and in fatal cases the breath is taken at longer intervals, the extremities grow cold, and the little sufferer sinks in death.

Treatment.—The patient should immediately have a dose of the tincture of lobelia, and be placed in a warm bed, with a steaming stone to the feet. Stimulating liniment, or, if this is not at hand, the bathing drops should be applied by the warm hand, with considerable friction. The tincture of lobelia, which may be given in honey or molasses, should be repeated as often as once in every ten or fifteen minutes, until the breathing becomes easy, when it may be given at longer intervals.

In bad cases, the lobelia must be given in doses sufficiently large to produce vomiting, and the emetic effect should be reproduced, at short intervals, until the patient is out of danger. The tepid bath is also very serviceable, and should not be neglected if the disease prove stubborn.

The oxymel of lobelia is an excellent article in croup, and may be used during the intervals between the times of vomiting.

Seneca snake-root has also been found useful in this complaint, and may be combined with the lobelia.

In some cases, the lobelia seems to do best when given with an astringent tea; and hence, with a view of disengaging the membranous coating of the trachea, a tea of the astringent tonic may be used to mix up or prepare the lobelia in, seeing that the astringents, being accompanied with lobelia, will not be likely to retard expectoration.

Some physicians treat croup with cold applications to the throat, as wet cloths, renewed as often as they get warm by dipping them in ice water. Bags filled with slushed ice have also been applied to the neck. This treatment is admissible, if continued only till the pulse is moderated.

DEAFNESS.

(*Paracusis.*)

This difficulty may be occasioned by anything that proves injurious to the ear, as loud noises from the firing of cannon, colds that affect the head violently, inflammation or ulceration of the internal ear, hard wax, foreign obstructions, as insects, &c., and paralysis of the auditory nerve. It may also arise from some congenital or original defect in the structure of the ear.

Treatment.—When deafness is caused by defects in the structure of the ear, little hope of a remedy can rationally be entertained. When it follows as a sequel of some of the *eruptive* diseases, as scarlet fever, or measles, which is often the case, it likewise seldom admits of a cure.

In cases of deafness that arise from hardened wax, this may be extracted by means of a proper instrument, or it may be removed by means of a few drops of olive oil, or some warm tincture of lobelia thrown into the ear by a syringe, and then rinsed out by injecting warm soapsuds. Insects, when they get into the ear, may sometimes be removed by dropping in some anti-spasmodic tincture, or tincture of camphor, once in a few hours. This causes them to crawl out.

Inflammations in the ear must be treated with stimulating relaxant poultices and liniments to the external parts, while other means designed to equalize the circulation, such as lobelia and other nauseants, baths, &c., are used collaterally. When the inflammation runs very high, a cathartic may be given, and a mustard plaster applied to the neck. The proper means in paralytic affections of the nerves of the ear, are, so far as the general treatment is concerned, about the same as in other cases of nervous paralysis. The local means should consist of frictions with the rubefacient oil or bathing drops, around the external ear and the angles of the jaw. Anti-spasmodic tincture, or tincture of capsicum, dropped into the ear, will likewise be serviceable.

DELIRIUM TREMENS.

(*Mania a Potu.*)

THIS is a species of delirium peculiar to those addicted to the use of spirituous liquors, or opium. The affection, however, it seems, does not generally arise from regular habits of intemperance, but rather from the sudden disuse of the accustomed stimuli.

Symptoms. — The delirium is preceded by indisposition, lassitude, watchfulness, headache, loss of appetite, and nausea. There is great restlessness and want of sleep, with an anxious expression of the countenance; and as the fit comes on, a tremor commences — first in the hands. "The countenance exhibits an expression of alarm and suspicion; the eyes are cast about with quick and scrutinizing glances, or often fixed, apparently upon some object that attracts the attention for a moment, and then quickly withdrawn; the tremor of the hands increases; the patient becomes irritable, and sometimes irascible; he is extremely restless, walks continually to and fro, and is wholly unable to obtain a moment's sleep. He now begins to manifest mental disorder, becomes loquacious, says he feels well, and is tormented with a more or less continued succession of various alarming, disgusting and ludicrous *apparitions*. He fancies that he sees dogs, snakes, cats, mice and other animals in his room, and disgusting vermin crawling over the bed and on his clothes, or that various persons have entered his room for the purpose of robbing, killing or annoying him. To avoid these and other horrid illusions, he often calls out loudly for assistance, runs to the door to make his escape, or to the window to leap out; is greatly agitated, vociferates, threatens, and sometimes raves violently. Sometimes he fancies that he hears loud and strange noises around him, over head, in an adjoining apartment, or loud and frequent knocking at the door. His mind and body are in a continued state of action; he calculates, projects, walks hurriedly about the room, picks up money, runs up to the window, and calls out to some imaginary person in the street, starts with terror and agitation from the presence of frightful and disgusting apparitions, insists that he is well, and confined with some sinister intentions against him, and requests to be suffered to go out in pursuit of his usual occupations. If the patient is flatly contradicted, he usually becomes much exasperated, and insists with vehemence on the correctness of his notions; but when he is soothingly dealt with, he will now and then answer certain questions mildly and even distinctly, and, by judicious management, may, in general, be restrained without any violent coercive measures. When the disease rises to a high grade, the patient becomes violently and often furiously delirious, talks incessantly, is restrained with difficulty, and is unable to recognize his friends and acquaintances."—(*Eberle.*)

Treatment.—The indications in the cure of delirium tremens are: 1, to equalize the circulation; 2, to quiet the nervous irritability; and 3, to restore the natural stimuli of the system.

Lobelia inflata is pre-eminently adapted to the fulfillment of the first indication, and it not only equalizes the circulation, but it thoroughly cleanses the stomach, thus restoring digestion and regulating all the secretions. Dr. Matson, of Boston, in speaking of the happy effects of lobelia in this disease, states that the patient will, in some instances, sink into a calm and refreshing sleep, as soon as he is put under its influence.

To obviate the nervous irritability, the nervine tincture will answer an excellent purpose. The author has succeeded in giving permanent relief in the most violent cases of delirium tremens he ever witnessed, simply by the use of the infusion of cypripedium. The symptoms were much modified by the first dose; and after the second, the patient became entirely calm and comfortable.

Capsicum, or, what is perhaps better, the compound tincture of myrrh, should be used in frequent doses, until the system is restored to the usual state of health.

DIARRHŒA.

Symptoms.—Frequent and copious watery discharges from the bowels, which are sometimes slimy and frothy, and not unfrequently very offensive to the smell. There is not generally much fever, unless the disease runs into a chronic form, and thus degenerates into chronic inflammation of the bowels; in which case, the pulse, though not very full nor strong, often increases considerably in frequency. In severe cases, the patient soon runs down into distressing debility.

Treatment.—The disease evidently arises from irritation of the mucus coat of the intestines, which is generally caused by indigestion. In this, a disordered condition of the stomach or the liver may also be in fault. But the disease often arises from the use of improper food or medicine.* In these cases, therefore, demulcents and evacuants of the proper kind become necessary. Diarrhœa may be arrested by a strong infusion of bayberry, or a compound of equal parts of its extract, carbonate of ammonia and camphor, in from five to ten grain doses, every hour until the disease is checked. Sometimes a dose of rhubarb, or, what is still better, the neutralizing mixture, will be more prompt and thorough in its effects than any other means, and may, therefore, be first employed.

The irritation of the bowels may generally be relieved by the use of demulcents, such as gum arabic, mallows, slippery elm and comfrey.

The practitioner should always have in view the law of vicarious action; for it is most generally the case that when one set of the excretory organs are preternaturally excited, the others become inactive. Thus it is generally the case in diarrhœa, that the urine, as well as the perspiration, is scanty. These matters must, therefore, not be neglected. Balsam of copaiva has gained some popularity in the cure of this complaint, and is much used by physicians, and, perhaps, by many, without a knowledge of its true therapeutic effect in this disease. This medicine is an active diuretic, and thus, as it promotes the urine, detracts from the bowels an amount of fluid corresponding with the increase of the urinary evacuations. Now, although the obstruction of the urine may not have been the original cause of the diarrhœa, yet it may have contributed much to the irritation that has kept it up, and unless the functions of the kidneys were restored, the disease would still have maintained its character. The utility of diaphoretics, in this complaint, depends on this same principle.

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* In the year 1845, the author witnessed some striking instances in the Commercial Hospital of this city, in which the medicine given was attended with unequivocally bad effects. A certain Mr. Hutchins, aged about forty, and of good constitution, was admitted into the hospital about the first of January, laboring under all the distressing symptoms of diarrhœa in its most aggravated form; for which, on its first appearance, he had procured medical attention. The treatment, as reported by himself, embraced the use of twenty-eight grains of calomel every three to four hours, besides some pills. This was followed with great debility, and the most rapid emaciation; and on examination, a spot of extreme tenderness was found in the right illiac region. This, as supposed by the lecturer, (Prof. Moorhead,) was occasioned by the mercury, causing inflammation in the cæcum. Of this there could not be a doubt, as every attending symptom strongly corroborated the fact. The patient, in spite of all that could be done for him, continued to run down with the diarrhœa, having sometimes from twelve to fifteen evacuations per day. A number of instances of the kind, among those treated in the hospital, might here be named; but it is unnecessary, as they are of no rare occurrence.

Tonic cordials should be used in diarrhœa, to strengthen and tone up the digestive organs.

DISLOCATIONS.

DISLOCATIONS, as well as fractures and other injuries resulting from violence, have generally been regarded as being out of the province of medicine proper, and to belong exclusively to the business of the surgeon. But as the treatment of injuries of this kind is so simple, and so much easier performed if attended to immediately on the occurrence of the accident, it is important that not only physicians, but the people generally, should know more or less about it.

A dislocation may usually be known by the position of the parts. If the part be a limb, it will be either longer, shorter, or distorted in some other way, according to the character of the injury. There is always more or less pain, swelling, and a partial or total loss of motion. The end of the dislocated bone may, in many instances, be felt in its new position; and the muscles or soft parts about the joint, change their shape and fullness, to some extent.

Dislocations are generally accompanied by laceration of the ligaments of the joints, yet instances do sometimes occur, in which the bones slip out of their places, merely from relaxation of the ligaments. Sometimes fractures also occur with dislocations. This is most commonly the case in accidents at the ankle joint, where a dislocation seldom occurs without fracture of the fibula, or small bone of the leg. The acetabulum or socket for the thigh bone, is also sometimes fractured in dislocations at this joint.

A dislocation may be *partial*, that is, resting in part on the natural articulating surface; or *complete*, when the two surfaces are entirely separated. Moreover, the injury may also be *simple* or *compound;* the first consists simply of the separation of the surfaces, while in compound dislocation the articulating surfaces are not only separated, but there is also a separation of the muscles, and laceration of the integuments or skin, thus laying open the joint.

Treatment. — In reducing a dislocation, the chief difficulty will be found in the rigidity of the muscles. For the best method of overcoming this difficulty, surgery is indebted to Dr. Thompson, the noted reformer; for although the use of relaxing means had been in practice for many years, yet until the superior relaxing powers of his lobelia, and the utility of his vapor bath, became known, means of this class had gained but little popularity. The torturing pulley and manual force were chiefly depended on, to overcome the action of the muscles.*

When the reduction of a dislocation is undertaken, the patient must take two or three doses, either of the antispasmodic tincture, or of the tincture of lobelia, and should be placed over the vapor bath, or at least have the muscles around the injured parts well vaporized by means of a steam pipe. No alarm need be taken if the medicine should produce nausea or vomiting, or even sicken considerably; this is the very purpose for which it is given. Nausea is always attended with a corresponding relaxation of the muscular fibre.

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* Castle, in his Manual of Surgery, states: "The most effectual mode of tiring the muscular power, is by the pulleys, which have this advantage over extension made by assistance, that your force is *gentle* and *continued*. First pass a wetted roller around the limb, and over this buckle on the leather with the rings to which the pulleys are to be fixed. Having fixed them on, draw the cord very gently, until you feel the muscles making some resistance, then rest two or three minutes, and extend again; and so on until you see the muscles beginning to quiver, and by a little further extension they will be overcome.

As soon as the muscles are well relaxed, any man of ordinary mechanical genius, possessing but a slight knowledge of anatomy, may succeed in reducing the dislocation with the greatest facility, and with comparatively little pain.

When the muscles are well relaxed, the patient may be supported on a table, or in any other convenient way; the bones in which the socket is situated should be secured by an assistant, while the operator takes hold of the limb or dislocated part, and gently raises the disengaged end of the bone from its new position, and returns it into its natural place. To effect this, extension and counterextension usually become necessary. But it may in many instances be accomplished by changing the position or rotating the limb, or by means of lever force. In cases of dislocation of the shoulder, for instance, in which the humerus is thrown into the axilla or armpit, the bone may be replaced, simply by placing a compress or ball of yarn in the armpit, under the bone, and then gently pressing the other end of the bone, or elbow, toward the body, at the same time shoving it up a little, when the head of the humerus will slide into its socket with the greatest facility. In reducing the dislocation of the femorus or thigh bone, the lever principle has been ingeniously applied, by the noted Sweet family, of New England. According to their plan, after the patient is placed on a table or bed, the leg is taken hold of by one hand at the ankle, and by the other at the knee; the leg is now flexed or bent at the knee, so as to make the lower part very nearly to approach the thigh, in order to convert it into a lever. The leg is now carried a little outward, and the thigh gradually brought up to the body, and thus gently pressed obliquely over the body, with the knee pointing toward the opposite shoulder. The operator, now, in the last place, rotates the thigh, by moving the ankle alternately inward and outward; when the head of the femorus is found ready to slip into its place.

The operator should, not only in making up his opinion as to the nature of the accident, but in the final adjustment of the part, occasionally compare the dislocated limb, or part, with its fellow in the natural state, for by those means he can have a more certain guide for his conduct than he can get elsewhere; nor need he be ashamed of this plan, as it is followed by the most popular surgeons, both in Europe and America.

After the parts are properly adjusted, they should be secured by proper bandages; and if the muscles do not readily contract or resume their natural state, they may be excited so to do, by the occasional application of cold water.

Rest should always be allowed to the parts, so as to favor the healing or reunion of the lacerated ligaments.

The time in which the reduction of a dislocation may be attempted after the occurrence of the accident, is from two to four months, according to the nature or character of the injury. Successful attempts have, however, been made at the reduction of dislocations of much longer standing; but those cases of long standing, had better only be trusted to skillful surgeons.

Compound Dislocations.— In those cases of dislocation in which the soft parts are lacerated or torn asunder, the adjustment of the bones, after cleansing them (should they have been exposed, and need it) by means of a sponge and warm water, should be effected in the same way as in other cases. After which the margins of the wounds should be brought together by means of some strips of adhesive plaster, or by stitching, and the sore afterwards dressed and healed up, as would be done in case of any other wound. The best of attention is necessary, however, to keep the air out of the joint. This must be done by constantly keeping on some impervious plaster.

DROPSY.

(*Hydrops.*)

THIS disease consists of a collection of serous or watery fluid in the cellular substance under the skin, or in the different cavities of the body. The affection receives different names, according to the location of the fluid. When it is diffused through the cellular membrane, either generally or partially, it is called *anasarca*. When it is located in the cavity of the skull, it is called *hydrocephalus*. When in the chest, *hydrothorax*. When in the abdomen, *ascites;* in the uterus, *hydrometra;* and when in the scrotum, *hydrocele*.

Dropsy is caused chiefly by atony, or debility of the absorbent vessels, which is brought on frequently by salivations, drunkenness, and by other diseases, such as consumption, affections of the liver, spleen, pancreas, &c. The disease seems also to arise from original defects of the constitution.

Symptoms. — Anasarcal dropsy is characterized by swelling or tumefaction of the parts, commencing first in the feet and ankles, but being generally less in the morning. The tumefaction is soft and inelastic, and when indented by the finger, the pits remain for some time. The skin is usually more pale than in health, and when the swelling is extreme, it is very smooth and shining. As the disease advances, the swelling proceeds higher up the body, until finally, in bad cases, even the face and scalp become swelled; the eyelids puff out; the breathing becomes difficult; the urine is small in quantity, high-colored, and deposits a reddish sediment. The skin is generally dry, owing to the want of perspiration, and there is usually considerable thirst, and some fever. The body becomes much emaciated, evincing a striking contrast between the size of those parts that are swelled, and those that are not. The swelling is sometimes so considerable as to burst asunder the skin, when the water will often run out in a stream.

Hydrocephalus. — The symptoms of dropsy of the head or brain, are rather obscure. There is, however, a pain in the head, particularly across the brow, stupor, dilatation or enlargement of the pupils, nausea, vomiting, slowness of the pulse, and convulsions. This disease chiefly effects children under twelve years of age, and when the child is under three years, we have a symptom in the protrusion through the *fontanel*, or opening of the head, which in the advanced stage of the disease becomes very conspicuous.

Hydrothorax.— In dropsy of the chest, the symptoms are, difficulty of breathing, (which is more considerable when the patient is in a horizontal position;) sudden startings from sleep, with anxiety and palpitation of the heart; a sense of weight in the chest; paleness of countenance; cough; swellings in the lower extremities; thirst; scarcity of urine; and want of perspiration. But the most unequivocal symptom of hydrothorax, is the fluctuation of water, which when it is collected in considerable quantities, may be felt or even heard by a bystander, when the body is suddenly agitated or shaken.

Ascites.— Dropsy of the abdomen is often preceded by loss of appetite, sluggishness, dryness of the skin, oppression in the chest, cough, diminution of the natural evacuations, as those of the skin, kidneys, &c. Signs of the collection of water in the abdomen may now be discovered; the belly will enlarge and grow tense or hard to the touch; the breathing will become difficult, and exercise laborious. By striking the side of the abdomen, the fluctuation of the water may now be sensibly felt by the hand on the opposite side.

Treatment.— Dropsies of the head, chest and abdomen, are all very difficult to cure; but dropsy of the cellular membrane, which, however, is by far of the most common occurrence, may most generally be cured without much difficulty.

The several varieties of dropsy are treated on the same general principles, embracing the fulfillment of two important indications. These are: 1, to evacuate the water, or dropsical fluid, by exciting absorption and excretion; and 2, to prevent its reaccumulation, by toning up and strengthening the system.

It will be perceived at once that direct means cannot always, nor indeed generally, be used in the removal of the water in dropsical collections. In many instances it is so remotely situated that it could not possibly be reached, by mechanical means, with safety to the patient In some instances we find the water collected within the skull and all the membranes of the brain; at others, it is found within the chest, enclosed by the pericardium or immediate inclosure of the heart.

When the most direct means of relief cannot be instituted, it is only left for us to tax more heavily our medical resources, and apply those that come next in their adaptation. We must now excite the absorbent system, and bring the fluid back again into the circulation, and then remove it hence.

In the animal economy, we find certain laws that always obtain. Thus there is a settled and fixed disposition of the system, not only to furnish a circulating medium, but to maintain the natural proportions of the principles of the blood. When the system is exanguous or in want of blood, the tissues are absorbed and transformed into blood, and hence the emaciation that so invariably attends starvation. When the *serum* or watery part is in excess, it is thrown off; when the *crassementum*, it is metamorphosed or changed, and dissipated. Whenever there is a lack of serum, all other fluids that can contribute to its formation are absorbed with the greatest avidity. Water is sometimes even taken from without, through the skin, for this purpose; and hence it is, that famished mariners and others are sometimes relieved from the most pressing thirst, simply by a shower of rain on their bodies.

In the treatment of dropsy we must take advantage of those principles; we must use such means as are calculated to evacuate the serum or watery parts of the blood, and thus compel the absorbents to take up the dropsical effusion. It is upon this principle alone, that we can expect to be successful in curing hydrocephalus, (*dropsy of the brain or head*,) hydrocardia, (*dropsy of the heart*,) and hydrothorax, (*dropsy of the chest*,) &c.

Among the means best calculated to answer the purpose, as here suggested, is the vapor bath. In its use, although much of the water running from the person is simply condensed vapor, it may be safely calculated that as much as a quart of fluid is discharged through the skin during the course of an hour, if the circumstances be favorable. In addition to these effects, the vapor bath also promotes the other evacuations, and what is more, the genial warmth that it imparts to the body, is eminently calculated to promote the free circulation of the blood, as well as to favor many of the other physiological functions.

The vapor bath, in *recent* cases of dropsy, should be applied once every day, and in *chronic*, from one to three times a week. As usual, they should be accompanied by stimulating and diaphoretic drinks.

Diuretics.— The absorption and evacuation of water from the system, may be much promoted by exciting increased action in the kidneys. For this purpose, the oil or essence of juniper, queen of the meadow, turpentine, clevers, parsley, asparagus, Indian hemp, melon seeds, elder bark, dandelion, or any other diuretic, should be used.

The employment of the diuretics may be commenced with the bath, in the beginning of the treatment, and should be continued on, as occasion may require, until the cure is complete.

Cathartics.— Among the most active means of exciting absorption, and removing watery collections from the system, are hydragogue cathartics.

"By irritating the exhalents of the internal surface of the intestines, a greatly increased secretion and loss of serum is suddenly produced by the action of these remedies. As a consequence of this, not only is the farther effusion of dropsical fluid diminished, by driving the blood from the exhalents of the cavities to those of the intestines, but its existing quantity is also directly lessened, by the absorbents assuming a more vigorous action, in order to supply the deficiency which the purging has induced in the serous portion of the blood. This view of the subject will aid us, I think, in accounting for the fact mentioned by Dr. Paris, and others, that cathartics often increase the effects of diuretics. If, for instance, we give a diuretic to a dropsical patient, a slight but insufficient increase of urinary secretion, for the most part, follows; the absorption is, of course, proportionably small. Let a cathartic be now administered. This will excite a sudden and considerable increase of serous evacuation by the bowels; hence an unusual demand for a restitution of this constituent portion of the blood is created, and by consequence, a new impulse given to the supplying or absorbing vessels, which continuing *after* the operation of the cathartic has ceased, will have the effect of supplying the kidneys with a larger portion of the elements of their secretion, and therefore enable those medicaments which are calculated to increase their action, to operate more effectually."

A powder made of equal parts of jalap, mandrake, and cream of tartar, with a fourth part of capsicum, should be given in half tea spoonful doses, every hour, until it operates freely. During the operation of the cathartic, the patient should be sustained with stimulating cordials. This hydragogue cathartic should be used once or twice a week, as the case may require.*

The elaterium or wild cucumber, is a very powerful hydragogue cathartic, and also operates as a diuretic. The author has witnessed the most astonishing effects following the use of this article, in the Commercial Hospital of Ohio. One case in particular, (a case of *ascites*,) which had long resisted other prominent remedies, at last yielded to this. But on the whole, the remedy is not without fault, it is too drastic and harsh in its operation, and cannot be used with entire safety. As we have many other articles that will answer in its place, it is not necessary that we should employ an article, some of the effects of which are so much at variance with our sound principles, unless by further pharmaceutical improvements, its bad effects may be obviated.

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* The author is well aware of the strong prejudice that exists in the minds of many good and honest reformers, against the use of cathartics in dropsy; and is very ready to admit, to some extent, the objections that have been urged against them. It cannot be denied that they produce debility, and irritate the bowels. But what evacuant is there, that does not debilitate more or less? Emetics, diaphoretics, diuretics, &c., all debilitate to some extent for the time, but the debility is not permanent. It arises only as a result of the absence of mechanical agencies, and now, as the organs are relieved, there will soon be a corresponding vital reaction. In this case the end fully justifies the means; when a less active treatment is depended on, the disease often advances, uncontrolled, until it not only produces more debility than the cathartics commonly give rise to, but until it ultimately results in death.

Dropsies of the brain, heart, chest, &c., have always been considered extremely hard to cure, and justly too. Nevertheless, they, like all other diseases, will yield to a proper treatment. Those, therefore, that are not able, successfully to treat these affections, (endeavoring to do it without the use of cathartics,) should be careful not to proscribe, inconsiderately, agents so efficient and safe, as are these in dropsy.

Frictions and Rubefacients.—The rubefacient oil and other rubefacients and stimulating external applications are sometimes of great service, especially in anasarca, or dropsy of the cellular membrane. The use of the flesh brush, or even a coarse towel, is also an important means, and should never be neglected in difficult cases. These remedies are eminently calculated to excite the absorbent system.

Emetics.—These are useful in the treatment of dropsy, not because they produce much of a direct evacuation of the water; but they cleanse the stomach, and thus prepare it, not only for the reception of the other medicines, but for the proper digestion of the food, which is an important matter; for the entire system is not only dependent on this function when in health, but without it can never be restored from disease. Moreover, the nausea produced by emetics is also calculated to sustain perspiration by means of the attendant relaxation. Finally, the shock given to the system by their operation is eminently calculated to excite the absorbents, and also, to some extent, the excretions.

It is a good plan to commence the treatment of dropsy with the exhibition of an emetic, and this always does better if administered immediately after the patient comes out of the bath. Lobelia should generally be preferred to other emetics, for this use. It is not often necessary to use this class of agents more than once or twice a week

Tapping, Bandages, &c.—In hydrocele, or dropsy of the scrotum, when the absorption of the fluid cannot be effected, paracentesis or tapping is sometimes advisable. In performing this operation, a trocar and means for injection are all the instruments that are necessary. The trocar (being within the canula or tube) should be introduced in the fore part of the scrotum, passing obliquely or nearly perpendicularly upward, in order thus to avoid injuring the testicles. The trocar must be withdrawn as soon as it has entered the tunica vaginalis or inner membrane. The canula should be left to remain, and endeavors should be made to evacuate all the fluid; and with a view to effect this, the parts may be griped with the hand and pressed moderately. Before the canula is removed, a weak solution of carbonate of potash should be injected through it, by means of an elastic bottle having a proper tube to it, in order thus to excite inflammation, which is all-important to prevent the re-accumulation of the water.

This operation had best only be intrusted to experienced or skillful hands, as it is very easy to do mischief here.

Tapping in ascites or dropsy of the belly, is often practiced by some physicians, but the author has never found much practical advantage by the process. The water is almost certain to accumulate again. In this variety of dropsy, we cannot have the advantage of the inflammatory action that we may excite after tapping in hydrocele, and hence the operation is of less benefit. The operation, however, is a very simple and safe one, and hence may be performed in bad cases, when it becomes an object to relieve the patient of his intolerable burden.

When the operation of tapping is performed, the patient may be placed in a high chair, with a vessel between his knees, the operator sitting on a lower chair immediately before him. A sheet should now be crossed around the abdomen, the ends of which may be held by an assistant, so as to press it tightly on the abdomen. The operator should now introduce the trocar, after making an incision about three-fourths of an inch in length, with a lancet, in the *linea alba*, or white line passing from the umbilicus to the pubis. The point at which the trocar should be entered, is about one inch below the umbilicus. The instrument is entered deep enough, when the water escapes on the removal of the blade from the canula.

The operation for ovarian dropsy is generally performed in the same manner and place as for ascites.

Bandages are sometimes applied to the feet and legs in anasarca, and around the abdomen in ascites, to prevent their further enlargement; but the practice, it is believed, is not generally very successful. But as the experiment is a safe one, those who may choose so to do, may try it.

Astringents and tonics are always important when the water has been removed, to brace up the system so as to prevent re-accumulation.

EARACHE.

(*Otalgia.*)

This, which is occasionally a very distressing complaint, arises generally from inflammatory affections of the internal part of the ear, which may be brought on by exposure to cold, by the introduction of some foreign substance, and by accidental injuries; or it may arise as a sequel of other diseases, such as measles, scarlet fever, &c.

Treatment.—The pain may generally be relieved by dropping six to ten drops of anti-spasmodic tincture, or tincture of lobelia, into the ear. Tincture of camphor will sometimes do best for this purpose. But if the case be severe, nauseating doses of lobelia should be taken once in ten or fifteen minutes, bathing the feet well at the same time, to equalize the circulation. The ear may also be steamed by placing the steaming pipe within a proper distance of the ear, and thus letting the vapor pour against the part, which should be shielded from the air by means of a cloth placed over the head. Among the best articles to medicate the vapor for this use, is tincture or gum camphor.

The oil that may be pressed out of peach meats, if dropped into the ear, will generally give relief in a short time.

Some tobacco smoke, or the smoke of stramonium leaves, may also be forced into the ear by means of a tobacco pipe, to good purpose.

EPILEPSY.

(*Epilepsia.*)

THIS disease, whether considered with reference to its immediate symptoms, or its remote consequences, is unquestionably one of the most distressing and deplorable of human maladies. Its morbid influence on the mind is no less marked than that on the body, and hence it was called by the ancient Greeks, *morbus sacer*, or the sacred disease, from the idea of its infliction by the gods. It is supposed that about two-thirds of those affected with epilepsy, suffer from its injurious effects on the mind, and that of these, about one-third are deprived of their reasoning faculties.

The effects of the disease on the body, are also very distressing, and sometimes frightful. "The epileptic attack sometimes comes on suddenly, without any manifestations of its approach. More frequently, however, certain symptoms precede the occurrence of the paroxysm, and of these the following are most common: A peculiar confusion and distressing feeling in the head; an absent, wandering and confused state of the mind; giddiness; dimness of sight; ringing and loud sounds in the ears; sparks and flashes of light before the eyes; distension of the veins of the head and neck; a trembling and feeling of restlessness in the extremities; an anxious feeling in the præcordial region; restlessness and starting during sleep; loss of the power of distinct articulation; complete temporary deafness and drowsiness. In some instances there is a manifest change in the moral disposition a short time before the accession of the attack. Sullen gloominess, with an irritable temper, is manifested by some patients. In some cases, the mind falls into a kind of reverie from which it cannot be drawn, which terminates often speedily in a total insensibility. Some epileptics evince an unusual timid disposition; others are spiteful, resentful and mischievous, shortly before the accession of the paroxysm. Occasionally, spasmodic twitches of particular muscles, especially in those of the face, precede the attack. Richter states, that painful sensations in certain parts of the body, particularly spasmodic pains in the stomach, with a rumbling noise in the bowels, occur as the precursor of the epileptic paroxysm."

When the paroxysm comes on, the patient falls suddenly with convulsions accompanied by temporary loss of consciousness, sense and voluntary motion. The face is frightfully distorted, the breathing hurried and laborious, the tongue protruded, and there is a frothing at the mouth. The eyes roll about wildly in their sockets, though sometimes at length become permanently fixed. The countenance is usually of a dark purple color, but is sometimes pale. The paroxysm may consist of a single fit; but more usually there is a succession of fits with alternate relaxations, sometimes to the number of a dozen, or even twenty or more. After the final fit, the patient generally soon becomes conscious, and sometimes has not the least recollection of his sufferings, or of anything that passed during the paroxysm. Some patients, however, often lay in a stupid or comatose state for hours after the convulsions have subsided.

The disease is caused by blows, fractures, and other injuries of the head by external violence; hyperœma, or fullness of the vessels of the brain, arising from obstruction in the circulation; water in the brain; tumors, concretions and polypus among the membranes of the brain; malformation of the head; and sudden frights, violent passions, drunkenness, intense pain, worms, teething, poisons, obstruction of accustomed evacuations, and hereditary predisposition, may also give rise to epilepsy.

Treatment.—The convulsions will yield, with singular promptness, to the effects of the anti-spasmodic tincture. This should be given in tea spoonful doses every five or ten minutes until relief be obtained. In the meantime, friction, with the use of some stimulating preparation, such as the rubefacient solution, or the bathing drops, should be applied to the extremities.

Various preparations have been used to prevent the recurrence of the disease, among the best of which, are pills composed of equal parts of lobelia seed, cypripedium, and capsicum. Of these, the patient should take as many, once a day, as the stomach will bear without sickening too much. The pulverized seeds of the thorn-apple, in one grain doses twice a day, has gained great popularity as a remedy in epilepsy; but the medicine is not a safe one, being possessed of narcotic properties of a very active character. The leaves of this plant are milder, and when digested in vinegar, may be employed pretty safely in small doses.

The following makes a very good compound for common use by epileptics:

℞ Pæony, ...	1	ounce,
Skull-cap, ...	1	"
Valerian, (English,)	1	"
Assafœtida, . . .	½	"
Lobelia, ...	¼	"
Stramonium leaves,	¼	"

Pulverize, and digest in three pints of good wine. The patient may take a table spoonful from one to three times a day.

The practitioner should always inquire into the cause of the complaint, and if this can be discovered, it must be obviated, if possible; for no treatment will be successful while the exciting cause of the disease is continued. Care as to diet is also necessary.

FAINTING.

(*Syncope.*)

THIS affection is characterized by a partial or total cessation of the functions of the lungs and heart; thus the pulse is either very weak or entirely imperceptible, the respiration indistinct, the countenance pale, and the extremities cold. Fainting is generally brought on by loss of blood, or irregularities of its circulation, by which the brain is deprived of its usual and necessary stimulus, and hence sudden and violent emotions of the mind, fright, intense pain, &c., by suspending the functions of the heart, may also give rise to it.

Treatment.—In many instances, the patient is relieved immediately by being placed in a recumbent position. Sometimes a sudden dash of cold water into the face will give relief. Stimulating the nostrils with volatile excitants, such as some of the preparations of ammonia, &c., are pretty certain to prove beneficial.

In urgent cases of fainting, permanent stimulants are required, such as capsicum, ginger, and carbonate of ammonia. Frictions with stimulating liniments are also sometimes of great service.

FALLING OF THE RECTUM.

(*Prolapsus Ani.*)

This difficulty consists of a descent of the lower portion of the large intestine, so as to expose the bowel externally. When thus exposed, the parts become irritable and painful, and often swell considerably. The difficulty arises from a relaxed condition of the parts, brought on, most generally, by the use of purges that spend their stimulating and relaxing influence excessively on this portion of the intestine. Aloes, in particular, is very apt to bring on this difficulty. The most of the pills that are sold throughout the country, are also calculated to do mischief in this way. The people cannot be too careful about the use of public nostrums. The constitutions of thousands have been ruined forever by their use, while many others, for their imprudence, have paid the forfeiture with their lives.

Treatment.—The parts sometimes return without assistance; but when this becomes necessary, it may be easily rendered by applying the fingers, previously oiled, to the protruding intestine, and gently pressing it back. Injections, made of such astringent articles as will not irritate the bowels, should now be used to contract and stay the part. For this purpose, cranesbill, white pond-lily, witch-hazel, or raspberry, is very good. An infusion of these articles may also be applied externally by means of a sponge.

Falling of the womb, (*prolapsus uteri,*) is also treated with the use of astringent injections to the parts, by means of a syringe for the purpose, which may be obtained at any drug-store.

FELON.

(*Paronychia.*)

Abscesses of the fingers are variously called, according to their situation in the part affected, as to their depth from the surface. When they are situated in the dermis or true skin near the nail, they are commonly called *runround*, (tourniole;) when in the cellular tissue, *whitlow;* and when in, or under the periosteum or membrane covering the bone, they are called *felon.* The abscess when thus situated in the finger, is in its essential character, just the same as when affecting the tissues in other parts of the body; the attending pain and slowness of its course being caused by the firmness of the tissues implicated, which do not yield much to the swelling, nor yet so readily to the suppurating process.

Treatment.—Various plans of treatment have been adopted for this painful disease. Some are of opinion that the least painful and quickest method, is to lay the finger open to the bone at once, in any stage of the disease after inflammation has fairly set in, and then treating it with poultices and salves till healed. Others employ various cataplasms, or soft and moist applications, as slippery elm and ginger, or bread and milk, and other poultices, from the commencement, without the operation. These applications are sometimes alternated with stimulating ones, as the dregs of myrrh, capsicum, lobelia, &c.

But perhaps the best treatment is as follows:—Immerse the finger in weak lye, contained in a vessel so as to admit of being heated. Let the lye be heated gradually, and let the finger be held in it as long as it can be borne, then apply the following:

℞	Common yellow clay,	1½ ounces,
	Camphor, ...	½ ounce,
	Alcohol	½ pint.

Dry the clay perfectly and pulverize very finely, and adding a small quantity of the alcohol to the camphor, pulverize this also, and mix the two intimately; then add sufficient alcohol, and form into a paste of the consistence of common mortar. This is to be spread on a cloth, and tied around the finger closely. It will soon become dry, and will need to be frequently wet with the alcohol. This is to be kept on wet for several days, though it will give relief in less than an hour. After this there will be no more trouble with the felon. If the treatment is commenced previous to suppuration taking place, it will arrest the disease at once. If matter is formed, it will be discharged with comparatively little pain, and the sore, by the application of some common healing salve, will soon heal.

Steaming the hand over a decoction of wormwood, tansy, hops, and dog-fennel, will ease the intolerable pain of this and similar affections, in a short time. The part should be confined over the vapor.

FLUX.

(*Dysentery.*)

Dysentery is a distressing disease affecting the bowels, and is characterized by frequent slimy or bloody discharges, griping pains, and distressing tenesmus. The disease occurs generally during the latter part of the summer and autumn.

Symptoms.—Dysentery usually sets in with a sense of lassitude, want of appetite, nausea, bad taste in the mouth, depressed pulse, slight chills alternating with flushes of heat, thirst, dry skin, and transient pains in the bowels. "Sometimes the disease comes on suddenly with griping, mucous and bloody stools and tenesmus, without any premonitory symptoms; and this is most apt to be the case, when it arises from causes that act immediately on the mucous membrane of the intestines. In general the fever is developed before the proper dysenteric symptoms show themselves; sometimes more or less diarrhœa, with tormina, [severe pain,] precede the occurrence of the febrile irritation; and occasionally mucous and bloody stools with tenesmus, [ineffectual straining at stool,] are the first symptoms. From the commencement of the disease, throughout its whole course, little or no fœces [natural stools] are discharged spontaneously; the stools consisting entirely of intestinal mucus, mixed with more or less blood. Tenesmus is one of the most constant and characteristic attendants on this affection; and the violence of this painful symptom, affords us a pretty accurate measure of the violence and degree of danger of the disease. There is often considerable pain and difficulty experienced in voiding urine. The tormina are extremely violent and distressing, particularly just before the urgent calls to stool are experienced; and a constant soreness is felt in the abdomen. Sometimes the stools consist almost entirely of intestinal mucus, very little or no blood being mixed with it. In most instances, however, a considerable portion of blood is discharged with the mucus, and in some cases the evacuations consist almost wholly of blood. These dysenteric discharges usually have a very peculiar disagreeable smell, but no fetor in the beginning of the disease; but in the advanced period of violent and dangerous cases, they frequently possess a pungent and cadaverous smell; and often acquire a corroding and sanious character."—(*Eberle.*)

Treatment.—The author has had much experience in the treatment of dysenteries, and consequently favorable opportunities of testing all the most popular plans that have been proposed; but the following, in his hands, has proved decidedly the most successful: — Give to an adult a large tea spoonful of the neutralizing mixture, once in every two hours, until the bowels are well cleansed, which may be known by the change of the stools, and the relief the patient gains from the effects of the medicine; then give the following:

℞ Extract Bayberry, } Equal parts.
Camphor,
Carbonate Ammonia,

Pulverize finely and mix. Dose, five grains repeated every time the bowels move. When this is not at hand, let the patient drink freely of a strong infusion, made by scalding either two ounces of astringent tonic, bayberry, or cranesbill, in a quart of soft water, adding (after straining it) four table spoonfuls of white sugar, a gill of brandy, and an ounce of compound tincture of myrrh. This preparation, if taken in wine glassful doses every two hours, after the neutralizing mixture has done its work, will in most instances soon relieve the looseness.

As soon as the bowels are relieved, tonic cordials, or even the cholera syrup, should be used until the patient is entirely restored.

Enemas. — Astringent injections are of incalculable advantage in the treatment of dysenteries, and should never be neglected in the more difficult cases; they restrain the blood, and adstringe the inner coats of the bowels, so as to prevent the escape of the fluids into the intestines. By the use of these means in dysentery, the medicine is applied more directly to the parts suffering most, and hence it may be expected that it will do more good than if used in another way.

Diaphoretics. — In this disease the cutaneous exhalents are very inactive, the matter usually passing off in this way, is now discharged through the bowels, by the laws of vicarious action. To restore the excretions of the skin, therefore, becomes a great desideratum. The common diaphoretic powders here answer an excellent purpose, and should be used freely. Rubefacients are also very beneficial, they detract the determining powers to the surface.

Stimulating fomentations to the bowels are indicated, when the dysenteric inflammation runs high.

FRACTURES.

Fracture, in surgery, means a division or broken condition of a bone, arising from violence.

"Fractures are either *simple* or *compound:* according as they are accompanied with an external wound, communicating with the ends of the bones, or otherwise.

"If the bone is broken in two or more pieces, and there is not an external wound communicating with the fractured edges of the bone, the fracture is still called *simple;* and, on the other hand, if the bone is broken in but one place, and there is an outward wound, the accident is called a *compound* fracture."—(*Castle.*)

External wounds occurring with fractures, although they may be extensive, do not make the fracture a compound one, unless the injuries are connected.

When fractures are attended with diseases or accidents, which render the indications in the treatment more numerous; that is, when the treatment necessarily becomes complicated, requiring various operations or different remedies, the accident is called *complicated* fracture.

Symptoms.—In the long bones, the existence of fracture is sometimes known at once, by the position in which the limb is found, as this is often distorted or out of its natural shape between the joints, so as to make the diagnosis clear.

The crepitus or cracking noise in moving the parts; the change in their form and length; and when the bone is superficial, the inequalities or unevenness of its surface, are all pretty sure signs of fracture. The inability to use the parts, and the deep-seated pain and swelling, may result from dislocation. Dislocations also, sometimes cause quite a crepitation when the parts are moved, owing to the changed condition of the synovial fluid.

Treatment.—The most important things to be done in the treatment of fractures, are to adjust the parts properly, and then to keep them so, long enough for the reunion of the bones.

The first thing to be done, is to relax the muscles of the parts concerned. This may be done either by the use of frequent doses of lobelia, or the antispasmodic tincture, or by means of the vapor bath. But the best plan is to employ those means conjointly. If the vapor bath cannot be conveniently applied, the entire limb or part should be enveloped in sheets or large cloths wrung out of hot water, which must be renewed as often as they cool off, until the muscles are completely relaxed. This being done, the limb must be put in such a position as will slacken the muscles alike on every side, and then the bone should be replaced into its natural position. To effect this, a little extension is generally necessary.*

When the bone is properly adjusted, the next object is to keep it in that position. For this purpose, splints, wrappings, or bandages, &c., are necessary. In the line of splints, an infinite number and varieties of patterns have been proposed, and it is now hardly known whose invention answers the best purpose. When the fracture is situated near the middle of any of the long bones, a few simple pieces of shingle, or even strips of stiff pasteboard, will answer very well in the absence of anything better. The edges of the splints must, however, be smoothly trimmed off, or the parts well protected by wrappings, so as to prevent injury to the soft parts by the swelling that may take place after the application.

A very good apparatus of the splint kind, may be made of some strips of woolen cloth, by applying to them some gum shellac dissolved in alcohol. These strips, although made very hard and stiff by the shellac, may be rendered quite pliable by holding it a few moments before a fire, or by placing it in hot water for an instant. While in this state, these strips may be applied to the parts, and very neatly molded to the shape of the limb, and as soon as the gum in the cloth gets cold, it will be firm and unyielding as before it was exposed to the heat, and hence if two or three of them are well applied in this manner around the fractured limb, they will keep it secure.

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* The force applied in extension, and counterextension, by some of our surgeons who are unacquainted with the relaxing power of *steam and lobelia*, is a disgrace to the profession. The author has a knowledge of a number of instances, in which irreparable injury was done thereby.

After the splints are applied, the only remaining particular in the treatment will be, to secure undisturbed rest to the injured part, until it shall have had time enough to recover sufficient strength to support itself.

Should there be much heat and fever about the fracture, after the splints are applied, it may be relieved by the application of cold water or vinegar.

Treatment of Compound Fractures. — The bones in compound fractures are often forced into the ground, and thus in reducing them make it necessary to clean them carefully, before they are returned. For this purpose a sponge with warm water should be used.

In reducing compound fractures, the greatest care must be taken not to let any foreign substance remain in the wound among the bones, as it will become a source of protracted irritation and ulceration. All loose splinters and small pieces of bone should be carefully removed with a suitable pair of forceps.

After the bones are properly adjusted and secured, the wound in the soft parts should be treated, in the main, like any other fresh wound.

The medical treatment in fractures, in addition to the relaxing means, consists in the use of such articles as are calculated to sustain an equal and uninterrupted circulation, and to keep up the vital powers. The diaphoretic powders are a very good medicine to be used as an occasional drink. The bowels should be kept regular, but the patient must not be purged.

The muscles must be kept in a quiet state by the use of the nervine tonic, but if this should not calm the twitching that sometimes comes on, the lobelia, or blue cohosh should be used in proper doses, in connection with the nervine tonic.

The natural phenomena in the restoration of fractures, is strikingly illustrative of *instinctive* vital action. In these accidents the contiguous parts are always more or less lacerated; the medulla, (*marrow*,) medullary membrane, periosteum, (*membranous covering of the bone*,) cellular tissue, and muscles, are always injured to some extent. Bleeding from the ruptured vessels ensues, which surrounds the fragments, passes into the cavities of the bones; and permeates the surrounding cellular tissues; whereupon inflammation takes place in all the parts, which may be considered the first step toward a cure. The cellular tissue that immediately surrounds the bone, now becomes very vascular, is somewhat thickened, loses its elasticity, and acquires a considerable degree of consistence. A number of irregular processes are sent out from this to the surrounding muscles, which adapt themselves to the design, and in common with the periosteum, (*which is also very much thickened and very vascular*,) join in the formation of a kind of provisional callus or envelop, around and exterior to the fractured ends of the bone. The medullary membrane, (if the bone be hollow,) forms a process of cartilaginous, or rather a fibro-cartilaginous substance, which fills up the whole cavity of the intended new bone, from above till below the fracture. Between these two walls of provisional callus, is now deposited a viscous or gelatinous fluid, which gradually assumes a reddish or rose-colored appearance, and adheres by its margins to this mold or provisional callus. From the twentieth to the fortieth day, (*depending on age and other circumstances*,) this gelatinous substance, thrown out between the ends of the bones, begins to ossify, (*turn to bone*.) Before this time, however, the extravasated blood is absorbed, and the muscles surrounding the external callus, have also become considerably liberated, and as the new part of the bone acquires solidity, the provisional callus becomes absorbed, thus leaving the parts in their original condition.

FRENCH MEASLES.

(*Roseola.*)

This complaint, which is sometimes called *false measles*, is characterized by rose-colored spots of various forms unattended by swelling or pimples, but occasionally preceded or accompanied by fever. These efflorescences may occur over the whole surface of the body, but are commonly confined to one or more parts. The complaint generally runs its course in from two to eight days.

The affections with which this is most likely to be confounded are measles and scarlet fever. This may, however, be distinguished from measles, by the size and appearance of its eruptions, which are much larger than those of that disease; and, what is more, the catarrhal symptoms are not generally so prominent in this, as in measles. It may be distinguished from scarlet fever, by the irregularly diffused *raspberry* efflorescence and tumefaction that characterize the latter. French measles is not generally considered contagious.

Treatment. — Mild aperients, such as the man root, narrow dock root, and white root, given in the form of teas for several days, will generally be all that is required in this, comparatively, mild affection. Rest and appropriate diet will also favor the cure.

GOITRE.

(*Bronchocele.*)

This affection is characterized by an enlargement of the *thyroid gland*, and is commonly called the *big neck*. The swelling commences on both sides of the larynx and trachea, with the appearance of a spongy tumor, which increases at first very slowly or imperceptibly, but, after a number of years, sometimes becomes enormously large.

Bronchocele is seldom attended with pain, or any other inconvenience except its bulk, unless it gets very large, when there is often not only the attendance of pain, but there is also a considerable difficulty of respiration in some cases.

Females are more subject to the disease than males.

Treatment.—A compound made of equal parts of the soft extract of yellow willow, stimulating liniment, and pulverized salt, if applied with friction three times a day, will generally remove the difficulty. The iodine ointment, however, is perhaps entitled to as much confidence as any other single article, in the treatment of bronchocele. It should be applied in small quantities, with friction, once a day. In the treatment of this affection, perseverance is necessary.

GOUT.

(*Arthritis.*)

Gout is an inflammatory affection of the fibrous and ligamentous parts of the joints. It usually first attacks the great toe, and from this it passes to the other toes, the joints of the fingers, and sometimes to the larger articulations.

This is a very distressing disease, being attended with severe pain, which gives rise to numerous sympathetic affections. The stomach is most apt to become affected with sympathy, and hence gout is attended with indigestion and its accompanying symptoms.

The disease usually comes on by paroxysms, lasting, sometimes, for a number of weeks, with but little abatement in its violence. It is supposed that the inflammatory action, in some instances, also involves the muscles and internal organs, that sympathize with the affected articulations, and hence the disease is variously called, *retrograde gout*, *misplaced gout*, *anomalous gout*, &c., according to the location or shifting of the pain.

Chalk-like formations occur in those joints long affected by the gout, and it has been supposed that this is the essential peculiarity of the disease.

Treatment.—Inflammatory affections of the ligaments and other parts about the articulations, are generally pretty hard to relieve, being so remotely situated from the general circulation. Thorough courses of the vapor baths and emetics, administered every day, or every second day, as the urgency of the case may require, are the only means that have yet been found to give relief with anything like promptness.

℞ Guiacum resin, . 1 drachm,
Botrophin, . . 5 grains.

Pulverize and mix. Ten grains of this, taken every two hours till it purges, proves serviceable in many cases.

Local Means.—A slippery elm poultice, with some pulverized lobelia seed and capsicum, sprinkled over the surface, and applied to the affected parts, will generally be beneficial. For this purpose, the rubefacient oil is very good, and its use should, therefore, not be neglected.

Bathing the feet in a strong decoction of the black cohosh, as hot as it can be borne, will be found very serviceable, especially when the disease is located in the feet.

GRAVEL AND STONE.

(*Calculus.*)

We understand by *gravel*, small sand-like concretions, which form in the kidneys, and pass through the ureters into the bladder, and thence from the system with the urine. The *stone* is a collection of the same substance into a larger bulk. These sometimes pass off in large sizes, and thus produce extreme pain and suffering. When too large to pass through the erethra, they will lay in the neck of the bladder, and thus produce great irritation of the parts, by obstructing the urine. As the water accumulates in the bladder, the patient becomes pressed with a distressing inclination to urinate; but this can be voided only in small quantities—sometimes only drop by drop.

It is thought by some, that the disposition of the system to form gravel or the sand-like concretions, is not favorable to the formation of stone; that is, those who discharge gravel are seldom troubled with the stone or larger formations.

Treatment.—Alkaline preparations are mostly depended on in the treatment of gravelly complaints, and they are, in general, useful. The disposition of the urine to favor these formations, is, in the majority of instances, dependent on the agency of *lithic acid.* The alkalies may, therefore, do much to obviate the chemical phenomena producing these morbid concretions.

There is, however, one variety of these concretions, in which earthy phosphates seem to constitute the material. In the treatment of this variety, the alkalies will not only prove useless, but may, indeed, ultimately enhance the difficulty.

The diagnosis or symptoms distinguishing between these varieties of gravel, although very important, are somewhat obscure. The sediment or deposits in the urine, afford us the principal means of gaining a knowledge on this point; when they are colored, that is, if they are red, yellowish, or brown, they are caused by the predominance of acid; but when they are pale, or white, they consist chiefly of earthy phosphates. When there is a discharge of the sand-like material, or of a calculus, our diagnostics are still better.

All the red, brown and yellowish appearing concretions, as a general rule, demand in their treatment the use of alkalies. In earthy phosphate concretions, or, those of a pale or whitish color resembling chalk both in appearance and consistence, are managed best by the use of diluted muriatic acid. Perhaps the best way to take the acid, is to first drop it into a glass with some slippery elm water: the dose is from ten to fifteen drops three or four times a day.

Soda and subcarbonate of potash, are the alkalies generally used in the treatment of gravelly complaints: they may be given in tea spoonful doses, two or three times a day.

Diuretics.—This class of agents is also of value in the treatment of gravelly affections; for, while diuretics favor the escape of the concretions, they also attenuate or weaken the chemical agencies causing them, by the increase of fresh and unimpregnated urinary secretions that they produce. The queen of the meadow, (*Eup. Pur.*,) in the hands of the author, has given the most encouraging evidence of its utility in these affections. The medicine should be freely used in strong decoction.

The juice of the garden radish has gained some popularity for its supposed power of dissolving stone in the bladder. The mode of its use is by injection through a catheter.

Injections.—Fourcroy introduced a practice (which has now, however, fallen somewhat into disrepute) of injecting lithontriptics into the bladder, by means of a catheter and suitable syringe. The agents, in this case, consist of acids and alkalies, soda, saleratus, and the muriatic and nitric acids. They are administered according to the indications above named. The bladder is first to be emptied, and then the preparation, about as strong as can be held in the mouth or swallowed, is to be injected in suitable quantities. The recent juice of the convulvulus panduratus, injected into the bladder, is said to dissolve the stone in the bladder.

Tonics and Diet.—These concretions are not formed according to the physiological laws, but are the result of a morbific influence. Whatever, therefore, can be done to tone up and strengthen the system, will be of paramount importance in these cases. Columba root, peach leaves, poplar bark, &c., are all good, and should be used, especially in cases attended with much debility. The food and drink, which alone afford the materials constituting these morbid concretions, ought to be selected with reference to this circumstance. People that are troubled with gravelly complaints, should endeavor to discover in what particulars their food differs from that of others, and in every deviation a change ought to be made.

HEADACHE.

(*Cephalalgia.*)

Pain in the head is seldom found to exist independently of some other derangement of the system. It is a usual attendant of all febrile diseases, foul or disordered condition of the stomach, and constipation of the bowels. Headache is also brought on by over-eating, drinking spirits, colds, intense solar heat, hard study, &c.

When the headache is very severe and protracted, and attended by sickness at the stomach, with vomiting, the affection is called *sick-headache.*

Treatment.—The pain will generally yield to the means employed to remove those affections or diseases that give rise to the headache; but when it becomes necessary to do something directly for the relief of the head, a cloth wet with ether or cold water should be tied around the forehead, while the feet, after being bathed with the rubefacient wash, must be placed in a pail of water as hot as can be borne. The heat of the water should be kept up by adding boiling water to it as it may be needed. By these means, the head will be relieved from the mechanical pressure of the circulation, and thus ease may be obtained.

Sinapisms applied to the feet and ankles, and left to remain until considerable irritation is produced, will mostly afford relief.

Emetics.—In severe cases, the patient must take a lobelia emetic, as this usually affords prompt relief. This is effected through the remarkable sympathy there is between the stomach and the head. When the headache is caused by over-eating or a foul stomach, an emetic is indispensable. Nauseating doses of lobelia will frequently relieve headache.

Stimulating Liniment.—In that variety called nervous headache, the stimulating liniment will generally afford relief: the good effects of the liniment may be promoted by drinking a tea of the nervine tonic.

Cathartics.—Medicines of this class will generally alleviate the headache; but it is not a good plan to use them much for this purpose, as the relief is obtained at too great a sacrifice. When the pain arises as an effect of constipation, the bowels should be relieved by the use of enemas, instead of cathartics. Nevertheless, it is sometimes the case that the latter are indicated: when there is much biliary derangement connected with obstinate constipation, one grain of the extract of mandrake should be taken every two hours, until three grains are taken: should it not operate within twelve hours, one or two more doses must be taken. The common cathartic pills are usually taken for this purpose, but are not quite so good.

HEARTBURN.

(*Ardor Ventriculi.*)

The difficulty known by this name, consists of a burning and gnawing pain in the stomach, accompanied with sour eructations and occasional nausea. It depends upon the souring or fermentation of the food in the stomach, and hence is a common symptom of dyspepsia.

Treatment.—Alkalies, such as soda, saleratus, and particularly magnesia, will generally give immediate relief. But these means must be considered only as palliatives; for, as the difficulty arises from a debilitated condition of the stomach, permanent relief can, in reason, only be expected in the use of such means as are calculated to strengthen the stomach and thus promote digestion. Capsicum, taken with the food in small quantities, will be found very good for this purpose. The spiced bitters should also be taken once a day.

Regimen.—The proper treatment of heartburn consists mostly of negative means. The patient should be careful to avoid the use of all kinds of food that are hard of digestion, and that disagree with the stomach; he should be very particular not to eat too much at a time, of any kind of food, as this practice is very ruinous to the stomach. The food should always be well masticated, and eaten slowly. Small quantities of lean animal food, such as beefsteak and mutton, will generally agree with persons troubled with heartburn.

HYSTERICS.

(*Hysteria.*)

The disease called *hysteria*, chiefly implicates the nervous system, but has received its name from the idea of its arising from an affection of the uterus. Females are most subject to it, but well marked cases are sometimes met with among males.

"The complaint appears under such a variety of shapes, imitates so many other diseases, and is attended with such a variety of symptoms, which denote the animal and vital functions to be considerably disordered, that it is difficult to give a just character or definition of it; and it is only by taking an assemblage of all its appearances, that we can convey a proper idea of it to others. The disease attacks in paroxysms or fits. These are sometimes preceded by dejection of spirits, anxiety at the stomach, and palpitation at the heart; but it more usually happens, that a pain is felt in the left side, about the flexion of the colon, with a sense of distension advancing upward, till it gets into the stomach; and removing from thence into the throat, it occasions, by its pressure, a sensation as if a ball was lodged there, which by authors has been called *globus hystericus*. The disease having arrived at this hight, the patient appears to be threatened with suffocation, becomes faint, and is affected with stupor and insensibility; while, at the same time, the trunk of the body is turned to and fro, the limbs are variously agitated; wild and irregular actions take place in alternate fits of laughter, crying and screaming; incoherent expressions are uttered; a temporary delirium prevails, and a frothy saliva is discharged from the mouth. The spasms at length abating, a quantity of wind is evacuated upward, with frequent sighing and sobbing, and the patient recovers the exercise of sense and motion [sometimes] without any recollection of what has taken place during the fit—feeling, however, a severe pain in the head, and a soreness over the whole body. In some cases, there is little or no convulsive motion, and the person lies seemingly in a state of profound sleep, without either sense or motion. Hiccough is a symptom which likewise attends, in some instances, on hysteria; and now and then it happens that a fit of hysteria consists of this alone. In some cases of this nature, it has been known to continue for two or three days, during which it frequently seems as if it would suffocate the patient, and proceeds, gradually weakening the constitution, till it either goes off, or else occasions death by suffocation; but this last is extremely rare. Besides hiccough, other spasmodic affections sometimes wholly form a fit of hysterics, which perhaps continue for a day or two, and then either go off of themselves, or are removed by the aid of medicine. In some cases, the patient is attacked with violent pains in the back, which extend from the spine to the sternum, and at length become fixed upon the region of the stomach, being evidently of a spasmodic nature, and often prevailing in so high a degree as to cause clammy sweats; a pale, cadaverous look, coldness of the extremities, and a pulse hardly perceptible." With these symptoms there is frequently quite a disturbed state of the mind, and extravagant ideas of various dreadful diseases affecting the body, harass the patient.

Hysteric fits are, however, sometimes mild in their attack, the patient often experiencing only a slight oppression at the stomach, attended with anxiety of mind and a sense of heat in the body.

Persons of weak and nervous habits are most subject to hysterics; and in those, the attacks are excited or brought on, frequently, by sudden emotions of the mind, as by sudden joy, grief, fear, &c., and from this circumstance the poor sufferer is often treated with neglect, and the most uncivil indifference, from the idea that the patient brings on the disease unnecessarily, that is, that it might have been avoided by a proper exercise of the mind. This has associated such an abhorrence with the name, that many are offended to be considered subjects of the disease. There are, however, many cases of hysterics, in which the disease is so intimately associated with a morbid predisposition of the organism, that the strongest mind is insufficient successfully to repel it—nay, when, in addition to this, medicine sometimes fails.

Treatment.—The treatment, in the paroxysm, must be commenced by the use of two or three doses of the anti-spasmodic tincture, which, after the spasms are relieved, should be followed up with a strong tea of the nervine tonic.

The following tincture is an excellent medicine for this complaint:

℞ English Valerian,	1 ounce,
Assafœtida, . .	1 "
Skull-cap, . .	½ "
Alcohol, . . .	1 pint.

Pulverize, and digest in the alcohol for ten days, and strain; or, for immediate use, the powders may be boiled in alcohol for ten minutes, and strained when it is fit for use.

The dose is from a tea spoonful to a table spoonful. A tea spoonful will do well when the use of the medicine is first commenced; but as the patient becomes accustomed to it, the dose must be increased. This is so excellent a medicine for this complaint, that hysterical patients, when they once become accustomed to it, will never be without it.

INDIGESTION.

(*Dyspepsia.*)

Dyspepsia, strictly speaking, is only a symptom of disease, as it only implies difficulty of digestion, which is an attendant or effect of nearly all diseases. The stomach, which is the principal organ of digestion, is, as it were, the centre of sympathies, and thus may be reached by a great variety of morbific influences. In chronic inflammation of the mucous surface of the stomach and upper part of the intestines, we witness a train of symptoms that come the nearest filling the description generally given of dyspepsia. There is a pain and burning in the stomach, with nausea and occasional vomiting; nidorus eructations; raising of sour food and fluids of a disagreeable acrid taste; heartburn; waterbrash; constipation of the bowels; clamminess of the mouth; foulness of the tongue; flatulency; palpitation; epigastric pulsation; general debility; dizziness, and sometimes fainting; lassitude and low spirits. The appetite is generally poor, but sometimes voracious. A full meal, and even sometimes a very small one, will lay heavily on the stomach, especially if the things eaten are hard of digestion, such as warm, heavy bread, fat meats, and certain kinds of vegetables.

When the disease extends through the upper part of the intestines, there is generally considerable derangement among the hepatic and biliary organs.

It must be observed that the mucous surfaces, from the nature of their use, cannot be favored with the protection of an epidermis, as is nearly every other surface of the entire system; but the nerves and vessels with which these organs are so abundantly supplied, are invested only with a membrane of the most delicate structure. When, in view of this extreme delicacy, it is considered that the human stomach is the devoted receptacle of all that is called for by our depraved appetites, which are only governed by the capriciousness of an imagination stimulated by the corrupt fashions of our day; and what is worse, fashion, by its magic influence, has led us to impose upon our stomachs services so unnatural and incongruous, as to make of them a kind of portable *apothecary's shop*, or dispensary, where drugs of every kind are kept, even without bottles or envelops, for distribution; it will then not seem strange that inflammation of the mucous membrane of this organ should be of such frequent occurrence.

There can be but little doubt that dyspepsia, in the large majority of cases, is produced by inflammation of the gastro-enteric mucous membrane. Dr. Eberle remarks:*—"The worst forms of dyspepsia, and all that host of inveterate gastric and bilious disorders of which so much is heard, and the true nature of which is so often misunderstood, are, in nine cases out of ten, the consequences of a chronic inflammatory condition of the lining membrane of the stomach. The slow and insidious progress of this grade of gastric inflammation during its early period, is indeed well calculated to elude observation, and to lead to a misapprehension of its true character." Dunglison writes to the same import; and Dr. Stokes in his lectures,† speaking of chronic gastritis, makes it the chief cause of dyspepsia; he remarks;—It [*chronic gastritis*] is commonly called dyspepsia, and this term, loose and unlimited in its acceptation, often proves a stumbling-block to the student in medicine. Dyspepsia, you know, [*speaking to his class*,] means difficult digestion, a circumstance which may depend on many causes, but perhaps on none more frequently than upon chronic gastritis. * * * Long continued functional lesion will eventually produce more or less organic disease; and you will find that in most cases of old dyspepsia, there is more or less gastritis. But let us go further, and inquire whether those views are borne out by the ordinary treatment of dyspeptic cases. When you open a book on the practice of physic, and turn to the article dyspepsia, one of the first things which strikes you, is the vast number of cures for indigestion. The more incurable a disease is, and the less we know of its treatment, the more numerous is the list of remedies, and the more empirical is its treatment. Now the circumstance of having a great variety of "*cures*" for a disease, is a strong proof, either that there is no real remedy for it, or that its nature is very little understood. A patient afflicted with dyspepsia will generally run through a variety of treatment; he will be ordered bark by one practitioner, mercury by another, purgatives by a third; in fact, he will be subjected to every form of treatment. Now all this is proof positive that the disease is not sufficiently understood. What does pathology teach in such cases? In almost every instance where patients have died with symptoms of dyspepsia, pathological anatomy proves the stomach to be in a state of demonstrable disease. It appears, therefore, that whether we look at the uncertainty and vacillations of treatment, or the results of anatomical examinations, the case is still the same; and that, where dyspepsia has been of considerable duration, the chance is that there is more or less organic disease, and that, if we prescribe for dyspepsia, neglecting this, we are very likely to do mischief."

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* Practice, vol. I, page 218.

† Stokes and Bell's Practice, second edition, vol. I, page 125.

Whatever may be the extent of the inflammation of the mucous membrane of the stomach and bowels, it will be invariably found to be attended with a corresponding suspension of the function of digestion. When the inflammation runs high, it generally happens that if food be taken, however agreeable in character, it is thrown up immediately from the stomach by vomiting, or it will pass into the bowels and be finally discharged without any signs of digestion. When the inflammation is less active, *i. e.*, chronic gastro-enteritis, we have all the varieties of symptoms and grades of indigestion, from the most distressing dyspepsia, down to the slightest and most transient want of appetite.

Cause.—Although dyspepsia may result from almost any cause of disease, yet, as already shown, it is most frequently brought on by the common causes of inflammation of the mucous coat of the stomach; as by excesses in eating and drinking; unwholesome food; intense mental application; sedentary habits, &c.

But one of the most deplorable sources of gastric difficulties, is the use of poisonous drugs as medicine, which are now given for the slightest derangements of the system.

Treatment.—The first thing to be done in the treatment of dyspepsia, is to discover, if possible, by what irregularity of habit or circumstances of exposure the difficulty was brought on, and then efforts should be made to remove at once, if practicable, the cause or causes of the disease.

The second indication is, to cleanse the system; and here it is to be observed, that to operate on the stomach alone, is not sufficient, although the primary affection may be here, for when the disease is once established in the stomach, the functions of all the other organs will be more or less impaired. We find that there is not only want of action in the stomach, but that the bowels move slowly, or at least very irregularly; that chylific absorption and the circulation are very languid; nor are the excretions more rapid. Obstructions so universal, need a general process of cleansing. For this purpose, a course of *emetics*, *baths*, *frictions*, and *enemas*, is most eminently adapted.

This part of the treatment, if the case be difficult, should be commenced, first by the use of the *diaphoretic powders* for a few hours, while the preparations for a bath are progressing. As soon as the skin becomes moist, a *lobelia emetic* should be administered and sustained during its operation, by stimulants, relaxents, astringents, or alkalies, as the case may require. When the emetic is done operating, the patient, after eating a little of some appropriate food, should be well rubbed with a towel wrung out of cold water, and have an enema, composed of a strong decoction of thoroughwort and poplar bark, or of the laxative bitter tonic, with a small portion of capsicum, or of the compound tincture of myrrh.

This course should be practised every second, third, or fourth day, according to the urgency of the symptoms, using laxatives, diaphoretics, tonics, and rubefacients, in the intervals, until the disease is broken up. In less obstinate cases, the several parts of this course may be used separately or alone, and repeated as occasion may require; observing also the plan of using an appropriate intermediate treatment.

As soon as the disease is found to yield, the use of tonics should be instituted; for this purpose the cascarilla is an excellent article, but if this is not at hand, any of the restorative preparations recommended among the compounds or the simple tonics in the Materia Medica, will answer very well.

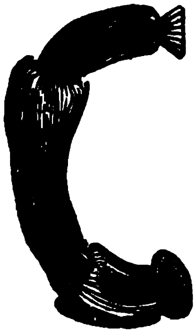
During the course of the treatment, the various incidental and local symptoms should have appropriate attention; thus the acidity of the stomach may be obviated by the use of a little carbonate of soda or subcarbonate of potassa (*saleratus.*) Colic pains may be relieved by carminatives, stimulants, and anodynes. Fine charcoal, taken in table spoonful doses several times a day, is very good, not only to keep the bowels open, but to prevent acidity of the stomach; it may be prepared by scalding it in milk.

Capsicum.—This is an excellent article in dyspepsia, and should be used in half tea spoonful doses, three times a day, or oftener. This medicine is a pure excitant, and will stimulate the living organs to the performance of their natural functions. Made into pills with equal parts of beef's gall, dried sufficiently to form into pills, and taken in the quantity of a common sized pill every evening, will not only be of eminent service to the stomach, but will keep the bowels regular.

INVAGINATION OF THE INTESTINES.

(*Intussusceptio.*)

Intussusception is a disease of the intestines, in which one portion of the tube is introduced into another, as represented in the following cut:



All parts of the bowels are subject to this derangement, but the small intestines, particularly the ileum, are found most prone to it. The length of the intestine thus invaginated, is usually only a few inches; but cases are recorded, in which several feet were involved. The number of these invaginations in a single case, is generally but one; but it happens sometimes, that in the course of the intestine, as many as two, three, or even half a dozen, occur at a time. The part thus incarcerated, if not relieved by the force of the muscular fibres of the surrounding portion of the intestine, some fortunate motion of the body, or the effects of medicine, may contract adhesions to the surrounding portion, and remain in this way, or it may die and separate from the living portion, and pass off from the system. This must, however, be considered a very dangerous accident, as many suffering from it, die in the course of from eight to twelve days. The symptoms of this disease resemble those of inflammation of the bowels or peritoneum so much, that it is hard to distinguish it from them; but when these symptoms prove unusually obstinate, intussusception may generally be suspected. The greatest distinguishing mark that we have, is that this disease is not preceded by the usual premonitory symptoms of those other affections, the pain coming on suddenly, and being soon followed with rumbling of the bowels.

Small children are most subject to many of the intestinal diseases, and it is supposed that nine-tenths of the cases that occur of this kind, are found among them.

The cause of the difficulty is supposed to be irregular or spasmodic contractions of the intestines, in which one portion contracts while the adjoining part is relaxed, and thus receives it.

It may be proper to remark, that while this explanation of the manner in which the derangement takes place seems very reasonable, it is altogether probable that the irritation produced by unnatural and poisonous medicines, may, in many instances, give rise to these *irregular or spasmodic contractions*, and thus be the primary cause of this terrible disease.

Treatment.—Injections of lobelia and capsicum tea, of proper strength, promise more in this affection than any other means. The injections must be repeated until the system is completely relaxed; and after this, if relief is not obtained, the next plan will be to crowd the bowels as much as possible, with thick slippery elm mucilage. With a view to the best effects of this means, the patient must endeavor to retain as much of the injected material as possible. The anus may also be secured by an assistant, or by means of bandages. For the purpose of carrying up the injected material as far as possible, it may be advisable to use a bogie, which may be introduced as far as the sigmoid flexure at least, and then the material may be injected through it.

Injecting or forcing wind into the bowels, has also been recommended by some writers. This may be effected by the use of a common bellows, the point of which may be introduced into the rectum, or it may be forced into the bogie, and the wind thus blown into the bowels.

JAUNDICE.

(*Icterus.*)

JAUNDICE is occasioned by an obstruction of the course of the bile, which is consequently taken up by absorption, and thus carried into the circulation; and hence, by its diffusion into the capillary vessels, stains the skin, eyes, mouth, throat, urine, &c., (being the only places in which it can be seen, although affecting the whole body just as much,) with a deep yellow.

This obstruction of the bile may arise from the presence of calculi in the gall-bladder, from inflammation of its duct or even the liver itself. The obstruction may also be produced by constipation of the bowels, external injuries, and mental emotions.

The attending symptoms are loss of appetite, dyspepsia, vertigo, nausea and perhaps vomiting, flatulency, and great dejection of spirits.

Treatment. — The treatment, in this complaint, should be commenced by taking a pill composed of equal parts of podophyllin and the extract of dandelion, every two hours until a cathartic effect is produced. This compound seems to have a specific action on the glandular system, and will generally reach the liver, stimulating it to a healthy action.

If the stomach is much disturbed, an emetic of lobelia may be necessary. As soon as the intestinal canal is cleansed, and the functions of the biliary system are restored, it will be necessary to remove the bilious matter from the circulatory and capillary systems. This may now be done, by the use of diaphoretics, aided, if necessary, by the vapor bath.

When the system is well cleansed, the organs may be toned up by the use of *tonics*, such as the yellow parilla, cascarilla, colomba, &c. The laxative bitters is an invaluable medicine in this disease, and should be used freely.

The yelk of eggs has been highly esteemed as a remedy in jaundice. It is to be taken raw, on an empty stomach.

The extract of dogwood bark is also highly prized in this disease.

LEPROSY.

(*Lepra.*)

There are several varieties of leprosy, some of which are common to this country. What are called, by authors, *lepra vulgaris*, *lepra alphos*, and *lepra nigricans*, are scaly affections of the skin, which, although divided into three varieties, consist essentially of the same disease.

The leprosy of our country makes its appearance in circular scaly eruptions, usually on the elbows and knees, but spreads afterward over the other parts of the body. The first variety (*lepra vulgaris*) consists of round patches of scales, that accumulate in thick crusts, which, if removed, will be quickly reproduced. The disease, commencing at the knees and elbows, passes from those parts to the body, where it may spread over a large surface. The second variety (*lepra alphos*) does not spread so extensively as the first, and it differs, also, somewhat, in the face of the eruption: in this, the centre of the patches is depressed, and as the patches enlarge, it (*the centre*) will frequently heal up, and thus recover the natural appearance. The third variety (*lepra nigricans*) is distinguished from the other varieties by the color of the patches, and the facility with which the scales may be removed. The color of the scales is dark or purple; they are easily removed; and as the skin under them comes to view, it is likewise found of a dark color: it remains bare much longer than in the other varieties, and is covered with a thin coat of bloody lymph.

The scaly leprosy seldom makes its appearance on the face, but is sometimes known to occupy the hairy scalp, and to affect even the nails of the fingers and toes, which become spongy, as it were, and assume a narrow and roundish shape not unlike the claws of a fowl.

EGYPTIAN OR GRECIAN LEPROSY.

The leprosy of the ancients, and which still appears in the oriental countries and Africa, is a disease much more dreadful than the leprosy of our country. This affection, which, from the appearance of the skin, is called *elephantiasis*, consists of a horrible *tubercular* eruption, that commonly makes its appearance on the face, but as the disease advances, the skin of the entire body may become affected with it.

This disease is exceeding obstinate in its character, and was believed, in ancient times, to be absolutely incurable; and from the idea of its being contagious, or perhaps more from the obscene appearance of the affected person, the unhappy sufferer was banished from society to die in obscurity.*

We are informed by the Moravian missionaries in Africa, that the natives there have at this day a large plain enclosed with a very high wall, within which all that are found affected with the disease are confined, never to be released, but there to support themselves by raising their own provisions.

Treatment.—As leprosy is, without doubt, dependent on a depraved condition of the nutritive functions, its proper treatment involves especial attention to this matter. A thorough cleansing process is first required; the condition of the stomach must be improved by the use of emetics, that of the bowels by proper cathartics and enemas, while the skin is relieved and restored to its healthy condition by the use of diaphoretics, baths, and other proper external applications.

After the main channels or vascular organs have been restored into a healthy condition, the system should be put under a course of depuratives and alteratives, as recommended for scrofula, while the attention is then mainly directed to the skin or more extensively affected parts.

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* It is more than probable that the leprosy spoken of in the sacred scriptures, differed somewhat from the disease now called ELEPHANTIASIS. This latter is characterized by a dark, rough appearance, whereas, *that* seems to have been of a light or white color. It is certain, however, that the leprosy spoken of in the Bible, was fully as obstinate as the elephantiasis seems to be, and hence the miraculous cures by the SAVIOUR were the more striking in character.

The diseased parts should be covered with a mucilage of slippery elm, thickened with finely pulverized lobelia seed. The parts must then be enveloped with a thin, soft skin, or oiled silk, to exclude the air. This application should be left to remain only some twenty-four hours, when it must be renewed. The vapor bath should be applied, at the renewing of the external applications, as often as two or three times a week.

In these obstinate diseases, perseverance in the treatment is all important; and when, from some peculiarities of the symptoms, the above applications will not be found the best adapted, they may be changed, and the oleaginous liniments and ointments may be used in their stead, or alternately with them, washing the surface with soapsuds at the changes. The stramonium ointment will be found very good. It may be mixed with the extract or powder of blood-root, and applied to the parts affected. Linseed oil has also been found serviceable.

LOCKED JAW.

(*Trismus.*)

In common usage, the term locked jaw has comprised all the different forms of *tetanus;* but in systematic classifications we have: 1, *opisthotonos*, in which the body is thrown backward by the contraction of the muscles of the back; 2, *emprosthotonos*, when the body is bent forward; and 3, *trismus*, or locked jaw, in which the muscles of the neck and jaw are chiefly affected.

Tetanic affections often come on with great violence, but more usually, they appear more gradually. In locked jaw, a slight stiffness is at first perceived in the back part of the neck, which, after a short time, becomes considerably increased, and at length renders the motion of the head both difficult and painful. An uneasy sensation is now experienced at the root of the tongue, together with some difficulty in swallowing, and a tightness in the breast. There is also a pain at the extremity of the breast bone, shooting into the back. At this stage, a stiffness will be experienced in the jaws, which increases until the jaws will become so firmly set that they cannot at all be opened, and hence the name *locked jaw*.

This affection is occasioned by irritation of the nerves, brought on by the effects of cold, particularly when conjoined with wetness,— by local injuries, such as punctures, incisions, lacerations, bruises, and burns or scalds. Lacerated or punctured wounds, in tendinous parts, are very apt to bring on the disease.

Treatment.— The most prompt and certain remedy for this as well as most other spasmodic diseases, is the anti-spasmodic tincture. This must be poured into the mouth, between the cheeks and teeth, and should also be administered (diluted with a tea of the nervine tonic) by injection. In the meantime, an assistant should apply the stimulating liniment, with rapid friction, around the jaws, neck, and along the spine. When the spasm is broken up, the patient must continue to use the nervine tonic in proper doses. It may be prepared in a strong tea, sweetened, and drank freely for several days.

The blue cohosh, swamp cabbage, and assafœtida, are also good in this disease.

MADNESS—CANINE.

(*Hydrophobia.*)

The term *hydrophobia* signifies a dread of water, which is one of the characteristic symptoms of the disease resulting from the bite of rabid animals. But this symptom is not peculiar to this affection, as it sometimes attends other disorders, as hysteria, and various febrile and other affections attended with an excitable, irregular nervous impressibility. Nevertheless, as a dread of liquids is so much more pressing and constant in this disease than any other, the name is still retained by most writers. It seems, however, that this singular dread is not confined to the sight and noise of *liquids* only, but may be produced by the sight of polished bodies and of mirrors.

"Dr. James observes, that this peculiar affection properly belongs to the canine genus, viz: dogs, foxes and wolves; in which animals only it seems to be innate and natural, scarcely ever appearing in any others, except when communicated from these. When a dog is affected with madness, he becomes dull, solitary, and endeavors to hide himself, seldom barking, but making a murmuring noise, and refusing all kinds of meat and drink. He flies at strangers; but, in this stage, he remembers and respects his master; his head and tail hang down; he walks as if overpowered by sleep; and a bite, at this period, though dangerous, is not so apt to bring on the disease in the animal bitten as one inflicted at a later period. The dog at length begins to pant; he breathes quickly and heavily; his tongue hangs out; his mouth is continually open, and discharges a large quantity of froth. Sometimes he walks slowly, as if half asleep, and then runs suddenly, but not always directly forward. At last he forgets his master; his eyes have a dull, watery, red appearance; he grows thin and weak, often falls down, gets up and attempts to fly at everything, becoming very soon quite furious. The animal seldom lives in the latter state longer than thirty hours; and it is said, that his bites at the end of his existence are the most dangerous. The throat of a person suffering hydrophobia is always much affected; and, it is asserted, the nearer the bite to this part, the more perilous."

It appears that the disease can be communicated to man by rabid animals that are not of the canine species, provided that they have the genuine disease. So far as yet known, however, it would seem that a person cannot communicate the disease to his own species; yet prudence would dictate that caution should be observed in this matter, as it appears that hydrophobia has been produced in dogs by inoculation from the human subject.

The appearance of the affection, after the bite, is at an uncertain period; sometimes within a fortnight, a month, or, according to some, it may not come on for a year, and even then appear. The bitten part may heal up without any signs of the hydrophobic symptoms, and yet the disease come on afterward.

Hydrophobia may take place without the appearance of any local symptoms; but more usually the individual feels a slight pain in the bitten part, which somewhat resembles rheumatism. From this, the pain will be felt to wander through the body, while a universal uneasiness and heaviness will be experienced; there will be disturbed sleep, frightful dreams, sudden startings and spasms; the patient evinces a disposition of anxiety, sighing, and a desire of solitude. The symptoms now become more severe daily; pains are felt to shoot from the wound toward the throat, which are soon followed with a sensation of choking, and a horror and dread at the sight or noise of water. The patient is, however, able to swallow other substances with tolerable ease; but as he endeavors to resist or overcome the dread of liquids, the mental and physical effort is singularly distressing and horrific: every muscle of the face is thrown into violent agitation, and those of the throat and trunk contract so forcibly and convulsively as to threaten suffocation. These agitations or paroxysms, at first, are only of a moment's duration; but subsequently they become more prolonged and still more violent.

In the majority of instances, the patient retains his reason, and will sometimes warn by-standers to keep away, lest he should bite or otherwise injure them.

At last the patient becomes exceedingly agitated and furious; his eyes sparkle; his face is red; he froths at the mouth; his countenance bears an expression of the deepest agony; and being convulsed in every part of the body, becomes a frightful object to behold. Vomiting finally ensues; a clammy sweat breaks out over his face and body; the pulse becomes small and intermittent, respiration difficult, and the poor sufferer sinks in the midst of the most awful sufferings.

Treatment.—Numerous remedies have been recommended for the cure of this terrible disease, many of which have been regarded as specifics. The chickweed, (*alsine media*,) water plantain, (*alisma plantago**,) scarlet pimperel, (*anagallis arvensis*†,) the ash-colored ground liverwort, (*lichen caninus*‡,) skull-cap, valerian, camphor, and carbonate of ammonia, have all been highly extolled for their virtues in the cure of hydrophobia. Besides these, a number of poisonous articles have also been recommended, the most prominent of which are the following: mercury‖, arsenic, copper filings, strychnine, (*nux vomica*,) nightshade, jimson-weed, poke-root, tobacco, Spanish flies, &c.

But with all these boasted remedies, it has been declared by very many, that nothing but the knife or the actual cautery, (*burning, or cutting out the wound*,) will promise any certainty of cure; while, on the other hand, some have affirmed that even excision or amputation is unsafe to be relied upon. Now, the truth may be found just between those notions: it is certain that excision or cauterization, though very severe and unnecessary operations, would, if well practised immediately on the occurrence of the bite, be pretty certain to be effectual; while it is equally certain, that if the bite is not cut out until after the poison has become diffused through the system, it will do no good whatever.

"When we take," says Howard, "a survey of the empirical, contradictory, extravagant and pernicious means which have been used or recommended in the treatment of this terrible malady, we are forcibly driven to the reflection that the popular practice of medicine, as taught in the schools, was nothing more than a chaos of confusion—a tissue of error, and of dangerous and unprofitable experiment; for, of all the various and contradictory modes of treatment, recommended by different authors, whether of stimulating or depleting, of relaxing or exciting, of burning or cutting, of warm bathing or cold bathing, nothing as yet is known to the *learned authors* of medicine, which can be relied upon as a certain cure. As Dr. Good observes, 'our curative practice is still unfortunately all afloat, and we have neither helm to steer by, nor compass to direct our course. There is, indeed,' continues he, 'no disease for which so many remedies have been devised, and none in which the mortifying character of vanity of vanities has been so strikingly written upon all of them.'

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* This article, as a prophylactic against hydrophobia, gained great popularity in Russia.

† This is one of the oldest remedies for this disease; both Galen and Ætius recommended it.

‡ The celebrated Dr. Mead asserts, that in more than one hundred instances he prevented the disease by the use of this remedy.

‖ The noted remedy of Dr. Merchant, consisted principally of the subsulphate of mercury and the chickweed.

"A new era has, however, taken place in the annals of medical science; the practice of medicine has become established upon new and correct principles; the means of cure have been investigated and improved; while, at the same time, the powers of the physician to control disease have become augmented and multiplied. There is good reason to believe that the lobelia inflata will be found a certain remedy for this terrific disease, as the few trials which have been made of it,* give strong proofs of its powers, and high promise of its future usefulness."

Vapor Bath.—It is stated that the great utility of the vapor bath in the cure of hydrophobia, was discovered in France by the following singular incident: Dr. Buisson, having pressing symptoms of hydrophobia, and despairing of a cure, selected the vapor bath as the easiest means of his death. The vapor was raised to a heat of one hundred and twenty-six degrees Fahrenheit: the doctor, taking leave of friends and all earthly objects, went into the bath to take his final exit; but, to his astonishment, instead of bringing on suffocation and death, it relieved his hydrophobic symptoms with singular rapidity. Dr. Buisson, in the communication of his case to the Academy of Arts and Sciences at Paris, says that by the same means he had cured upward of eighty patients of hydrophobia, and intended to try it in cholera, plague, yellow fever and gout.

The vapor bath has since fully established its character as a prophylactic against this disease. It should be applied once every other day for two weeks, and, after this, for two weeks more, every second day. The lobelia must be used in emetic doses immediately on coming out of the bath, as the relaxation produced by the vapor will much insure the good effects of this valuable medicine.

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* It has since been thoroughly tried in numerous instances.

Local Treatment.—In this disease the local treatment is a very important part: as soon as possible after the bite, the wound should be well washed out with the sour tincture of lobelia; and then a poultice made of equal parts of lobelia seed well pulverized, and slippery elm flour, mixed up with vinegar, must be applied and worn (replacing it by a fresh one every day,) on the wound until it is healed up.

Nauseants.—The lobelia should be given once in two or three hours, in broken doses; that is, in doses large enough to keep the stomach somewhat nauseated. The condition favorable to hydrophobia is entirely incompatible with the nausea of lobelia.

Nervine Tonics.—The skull-cap and valerian should be taken in a tea, two or three times a day, with a view to defend the nerves against the morbific influence, which is very important, as the disease chiefly implicates the nervous system.

The author cured two cases of the disease in 1845, simply with the sour* tincture of lobelia, given internally, in nauseating doses, once in two or three hours, and applying it freely externally—using, at the same time, a strong tea of skull-cap and valerian.

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* It is important to observe the precaution of preparing the lobelia for this use, with vinegar instead of spirits, as the vinegar itself is a powerful prophylactic against this disease. In favor of its good effects in hydrophobia, we have the authority of Rhazes, among the ancients, and Werlhot, Bucholz, and Rust, among the moderns.

MEASLES.

(*Rubeola.*)

THIS is a disease that is very common among children, prevailing some seasons in the character of an epidemic.

Symptoms.—In the commencement, there is suffusion and running of water from the eyes and nostrils; sneezing, cough, and swelling of the eyes and face; with occasional shivering, cold in the back, and drowsiness. "An eruption first appears behind the ears, on the third or fourth day, spreading downward to the neck and forward to the chin, mouth, or forehead, but seldom shows itself on the body until a day or two after. The eruption speckles the skin somewhat like the bites of fleas, and is of a crimson color and not scarlet, as in scarlet fever. The crimson specks of measles arrange themselves in groups of irregular circles or crescents, and leave the skin between them of its natural color, which never occurs in scarlet fever. The great danger in measles does not arise from the abundance of the eruption, the severity of the fever, the oppressed breathing, nor the violence of the cough; but almost wholly from the secondary inflammation that comes on, or, rather, after the fever or eruption have gone off, which usually happens in nine or ten days. Many children have this secondary stage produced or increased, by cramming them with too strong food when they are beginning to recover, with the false notion of strengthening them. It is no less absurd to dose the little patients, after measles, with purgatives, when their bowels are in proper order."—*Abernethy.*

The cause of measles evidently is contagion, although rare instances occur in which the disease arises without any chance of the agency of contagion.

The disease which this resembles most, is scarlatina, and here the diagnosis is sometimes difficult.

The following table is given in Marshall Hall's Practice, showing the difference between the symptoms of scarlet fever and measles:

1. *The prevailing epidemic.*	Rubeola, [*measles.*]	Scarlatina, [*scarlet fever.*]
2. *The latent period.*	From 10 to 14 days.	From 1 to 6 days.
3. *Symptoms.*	Febrile catarrh, coryza, [*running at the nose,*] ophthalmia, [*inflammation of the eyes.*]	Febrile sore throat, great heat and tumidity of surface, nausea or vomiting.
4. *Appearance of the eruption.*	On the fourth day.	On the second day in S. simplex; third, in S. anginosa; and later still, in S. maligna.
5. *Form of the eruption.*	Circular dots; crescentic arcs, [*growing circles.*]	Diffused.
6. The Indoles, [*disposition or character.*]	Mostly inflammatory.	Often typhoid, and especially in S. maligna.
7. *Principal complications.*	Affections of the anterior nares, the larynx, trachea, lungs, &c.	Affections of the posterior nares, fauces, &c.
8. *Principal sequela.*	Thoracic disease.	Inflammatory anasarca; meningitis, [*inflammation of the membranes of the brain.*]

Measles are not generally attended with much danger, except when complicated with other diseases, or when the affection results in other complaints that are of a fatal tendency. Symptoms of disease in the breast and head, may be regarded as being at least tedious to manage. The same individual is liable to the affection but once.

Treatment. — In mild cases of the disease, it is seldom necessary to use much medicine. Some gentle diaphoretic, such as chamomile, pennyroyal, thoroughwort, or the diaphoretic powders, may be used to keep out the eruption. In more difficult cases, it may become necessary to use more active means. Should there be much fever and pain, and the eruption not appear, or appear imperfectly, the patient must take some permanently stimulant and relaxant medicines, such as the following:

℞ Lobelia herb, . }
Thoroughwort, . } Equal parts.
Seneca Snake-root, }

Pulverize and mix. It may be taken in molasses or some preserves, or it may be stirred into some hot water and sweetened, and then taken in suitable doses. This, with friction on the surface, will generally bring the determining powers to the surface, and fully develop the eruption.*

Should the stomach be much out of order, an emetic may become necessary; and if the bowels be constipated, they must be relieved by the use of enemas, as it is not best to employ much cathartic medicine in measles. When other diseases supervene, they must be treated according to the symptoms that attend them.

MELANCHOLY.

(*Hypochondriasis.*)

This is a very singular and distressing disease, affecting both the body and mind. It consists, essentially, of a deranged condition of the digestive organs and functions of nutrition; thus giving rise to depression of the animal spirits, and a disturbed condition of the intellectual faculties.

Hypochondria comes on with a sense of languor, listlessness, or want of resolution and activity with respect to any undertakings. The patient feels serious, sad and timid; he is ever pondering on the ills and misfortunes of life; and, on the slightest grounds, he suspects evil, and from the most trivial events he takes alarm. He is particularly attentive to the state of his own health; and the smallest changes of feeling are regarded as indications of constitutional unsoundness. Any unusual sensation, however slight, he considers a premonitory symptom of approaching disease, if not the immediate forerunner of death. Sometimes he imagines that he is dying, or that he is actually dead; and so strong and fixed is his notion, that he will not be persuaded out of it, however great the pains taken.

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* The country people have a remedy that they call *sheep saffron*, by the use of which, they bring out the eruption with great success. Indeed, with this remedy, an old woman will treat more patients, and lose a less number, than the best physicians practicing after the old plan. But a remedy so filthy and disgusting, it is not designed here to recommend. A compound of carbonate of ammonia and the bitter snake-root, in equal parts, taken in proper doses, will answer perhaps equally well.

Treatment.—The medical treatment of patients affected with low spirits, should consist of such means as are calculated to improve the condition of the digestive organs. The various means, therefore, that are recommended for dyspepsia, under page 182, should be instituted.

Frequent cold bathing is particularly advantageous in this affection. Occasional emetics, tonics, and laxative bitters, are always required. The grand object is to keep the system free of obstruction, and the organs in good tone.

Moral means.—It is always a matter of the greatest importance for the practitioner to secure the full and entire confidence of the patient. Every effort should be made to get the patient to believe that the means used will cure him; and with a view to this, some important remedy—a celebrated arcanum—must be talked of; desires to get it must be frequently expressed in his presence, and, at the same time, doubts as to the possibility of procuring it may be evinced. Finally, however, the great desideratum is gained—the medicine is procured, and hence the cure will be certain. Together with other good and prompt treatment, some mild remedy, whose specific action is certain and well known, must now be given. The patient must be made to anticipate certain effects, and to be assured that if they take place, all will be well. This important remedy, for instance, may be a safe but active diuretic, or any innocent article that will stain the urine, or that will produce some other prominent or remarkable effect that may be safely predicted by the physician.

Sometimes a cure may be effected by instituting some interesting, engrossing and absorbing scheme, as some *mining speculation*, or some important *expedition*, and thus isolating the attention and thoughts of the patient.

Traveling is very beneficial to some.

Moral and religious conversation is very beneficial, and if the patient's mind can thus be engaged and engrossed, it is entirely the best plan of treatment.

Some very singular and amusing means have occasionally proved successful. The author heard an instance related, of a hypochondriac patient, who lived in this country at the time of its early settlements, and who, withal, had a most horrible dread of the Indians. The chief affliction of this individual, was his belief that his legs were *glass*. He never suffered himself to be moved, and his legs were even not to be handled, lest, by accident, they might be broken! After keeping his room for a year or longer, he was at length prevailed on to take a visit to a neighboring house, with the assurance that the care he would have would insure the safety of the enterprise. A carriage was procured, the man with "glass legs" was carefully placed into it, when the driver proceeded with the greatest care. When about a mile from his home, a sham conversation with reference to some late depredations by the Indians, was introduced. The fears of the hypochondriac were soon aroused, so that he entirely forgot his *glass legs*. Soon they were to pass through a strip of woods, and as they drew near, the fears of the distressed man evidently became more and more pressing. The carriage had no sooner entered the woods, when five men, (*prepared for the design*,) in Indian habits, with rifles and tomahawks in hand, rushed from the hill-side with tremendous war-whoops, yells, and firing of their guns. One of the men in the carriage, who had risen up to make his escape, fell as dead to the ground, when the man with the glass legs leaped from the carriage and "*took to his heels*," and the Indians after him. But the stiff-legged man left them far in the rear; he was soon at his house, in a fine perspiration.—The means were successful.

The following, from Ewell's Medical Companion, are cases that are not without interest:

"Some hypochondriacs have fancied themselves miserably afflicted in one way, and some in another — some have insisted that they were TEA POTS, and some that they were TOWN CLOCKS — this, that he had a big belly, and that his legs were glass — one, that he was extremely ill; and another, that he was actually dying. But I have never heard of any of this blue-devil class, whose extravagance ever yet came up to the following, which was related to me by my noble-hearted old friend, Dr. Stevenson, of Baltimore, whose very name always sounds in my ears as the summary of every manly virtue.

"This hypochondriac, who, by the by, was a patient of Dr. Stevenson, after ringing the change on every mad conceit that ever tormented a crazy brain, would have it at last that he was dead, actually dead. Dr. Stevenson having been sent for one morning in great haste, by the wife of his patient, hastened to his bedside, where he found him stretched out at full length, his hands across his breast, his great toes in contact, his eyes and mouth closely shut, and his looks cadaverous.

"'Well, sir, how do you do? how do you do this morning?' asked Dr. Stevenson, in his blustering jocular way, approaching his bed. 'How do I do?' replied the hypochondriac, faintly — 'a pretty question to ask a dead man.' 'Dead!' replied the Doctor. 'Yes, sir, dead, quite dead; I died last night about twelve o'clock.'

"Quick as lightning, Dr. Stevenson caught his cue, which was to strike him on the string of his character; on which, the Doctor happily recollected, he was very tender. Having gently put his hand on the forehead of the hypochondriac, as if to ascertain whether it was cold, and also felt his pulse, he exclaimed, in doleful note, 'Yes, the poor man is dead enough — it is all over with him, and now the sooner he can be buried the better.' Then stepping up to his wife, and whispering her not to be frightened at the measures he was about to take, he called to the servant, 'My poor boy, your poor master is dead, and the sooner he can be put in the ground the better. Run to Mr. C——m, for I know he always keeps New England coffins by him, ready made; and, do you hear, bring a coffin of the largest size, for your master makes a stout corpse, and having died last night, and the weather warm, he will soon begin to smell.'

Away went the servant, and soon returned with a proper coffin. The wife and family having got their lesson from the Doctor, gathered around him, and howled no little, while they were putting the body in the coffin. Presently, the pall-bearers, who were quickly provided and let into the secret, started with the hypochondriac for the church-yard. They had not gone far before they were met by one of the townspeople, who, having been properly drilled by the facetious Stevenson, cried out, 'Ah, Doctor! what poor soul have you got there?'

"'Poor Mr. B——,' sighed the Doctor, 'left us last night.'

"'Great pity he had not left us twenty years ago,' replied the other, 'for he was a bad man.'

"Presently another of the townsmen met them with the same question, 'And what poor soul have you got there, Doctor?'

"'Poor Mr. B——,' answered the Doctor again, 'is dead.'

"'Ah! indeed!' said the other. 'And so the devil has got his own at last.'

"'Oh, villain!' exclaimed the man in the coffin, 'if I was not DEAD, how I would pay you for that.'

"Soon after this, while the pall-bearers were resting themselves near the church-yard, another one stepped up with the old question again, 'What poor soul have you got there, Doctor?'

"'Poor Mr. B——,' he replied, 'is gone.'

"'Yes, and to h-ll,' said the other, 'for if he is not gone there, I see not what use there is for such a place.'

"Here the dead man, bursting off the lid of the coffin, which had been purposely left loose, leaped out, exclaiming, 'Oh, you villain! I am gone to h-ll, am I? Well, I have come back again to pay such ungrateful rascals as you are.'

A race was immediately commenced between the dead man and the living, to the petrifying consternation of many of the spectators, at sight of a corpse bursting from the coffin, and in all the horrors of the winding-sheet, racing through the streets. After having exercised himself into a copious perspiration by this fantastic chase, the hypochondriac was brought home by Dr. Stevenson, freed of all his complaints. And by strengthening food, generous wine, cheerful company, and moderate exercise, was soon restored to perfect health.

"To demonstrate further, the happy effects of possessing quick wit, 'to shoot folly as it flies,' I will cite another case of Hypochondriasm, which came under the care of that philanthropic and learned physician, the late Dr. Crawford, of Baltimore, who, in everything that was amiable and good, was not unlike his intimate friend, Dr. Stevenson.

"A certain hypochondriac, who, for a long time, fancied himself dying of a liver complaint, was advised by Dr. Crawford to make a journey to the state of Ohio. After an excursion of three months, he returned home, apparently in good health; but upon receiving information of the death of a twin brother, who had actually died of a scirrhus liver, he immediately took the staggers, and, falling down, roared out that he was dead, and had, as he always expected, died of a liver complaint. Dr. Crawford being sent for, immediately attended, and asked the hypochondriac how he could be dead, seeing he could talk. But still he would have it that he was actually dead. Whereupon, the sagacious doctor exclaimed, 'Oh, yes, the gentleman is certainly dead, and it is more than probable that his liver was the death of him. However, to ascertain the fact, I will hasten to cut him open before putrefaction takes place.' And thereupon, getting a carving knife, and whetting it as a butcher would to open a dead calf, he stepped up to him and began to open his waistcoat, when the hypochondriac, horribly frightened, leaped up with the agility of a rabbit, and crying out, 'Murder! murder! murder!' ran off with a speed that would have defied a score of doctors to catch him. After running a considerable distance, until he was almost exhausted, he halted; and not finding the doctor at his heels, soon became composed. From that period, this gentleman was never known to complain of his liver; nor had he, for better than twenty years afterward, any symptom of this disease."

MILK SICKNESS.

In some sections of Kentucky, Ohio, Indiana, and Illinois, an affection prevails, which from its cause and symptoms, is variously named, *milk sickness*, *puking complaint*, and *trembles*. The disease is caused indirectly by a poisonous plant, which being eaten by cattle, thus communicates its poison to the milk, as well as to the flesh of the animal, which when eaten by the people, gives rise to the disease.

Symptoms.—"Milk sickness usually comes on with lassitude and weariness, with a sense of great exhaustion, and trembling from slight exertions; the breath is very offensive, having a peculiar and disagreeable smell. Obstinate costiveness either accompanies or succeeds these symptoms, which is soon followed by sickness at the stomach, and vomiting; and great distress, with a burning sensation at the stomach." If the disease is not checked, it will soon bring on great debility, which is generally attended with a singular trembling.

Treatment.—The symptoms readily suggest the treatment most appropriate in this affection. Thorough emetics are particularly indicated. The anti-spasmodic tincture, or the lobelia in powder with the nervine tonic, in equal portions, will be better in this disease than the lobelia alone. When the stomach is well cleansed, the next object should be to relieve the bowels from the pressing constipation, that is always attendant on the disease. For this purpose, injections are necessary. Among the best preparations for this use, is the following:

℞ Soft soap,	1 table spoonful,
Common cathartic,	1 tea spoonful,
Lobelia,	½ "
Capsicum,	¼ "

Scald in a pint of water, and administer at once while warm. The injections must be repeated at short intervals, until the desired effect is produced. In the meantime, a dose of some safe but active cathartic should be given.

Charcoal.—In this disease, prepared charcoal is one of the best remedies, and should be used in proper doses, once in three or four hours during the entire treatment, after the lobelia has done its duty.

External Applications.—The oil of spearmint or peppermint, applied over the region of the stomach, will be very good to quiet the irritation of this organ. If the oil of the mints is not at hand, the herb, bruised and scalded, may be applied, first sprinkling the surface with some capsicum.

Tonics.—As soon as the symptoms give way, the use of tonics must be commenced, and continued until the strength is again restored. The bitter and nervine tonics may be used, in equal portions, three times a day, in tea spoonful doses.

MORTIFICATION.

MORTIFICATION is usually divided by writers into two stages, *gangrene* and *sphacelus.*[*] It is generally calculated that gangrene is within the reach of medicine, while the parts affected with sphacelus are absolutely beyond the control of all remedies.

Mortification simply means the death of a part, and may take place in any part of the body. When it implicates the bones, it is usually called necrosis or caries. When mortification is about to take place in a part, the affected structure loses its sensibility, it becomes cold, the blood ceases to circulate, and absorption is suspended. The process by which these changes are accomplished, is usually progressive, but is much governed by the soundness of the constitution, the violence of the exciting causes, and still more by the nature or structure of the affected part. Thus mortification, in some parts, takes place in a few hours, whilst, in others, it does not make its appearance for several weeks, or even months, after the parts have first become diseased, and active inflammation has set in. "The cellular, cutaneous, and mucous, may be enumerated as the textures which are more frequently seized with mortification than any other; and it is worthy of remark that these are parts that are extremely well supplied with blood, especially the two latter. Nevertheless in the skin and cellular substance, this event takes place most frequently in situations which are remote from the central organ of the circulation, as on the hands, feet, and posterior portions of the trunk. In the mucous system, the parts most liable to mortification are the gums, the inside of the cheeks, the tonsils, the colon, the inferior third of the ileum, the urinary bladder, and the lining membrane of the vulva. The serous membranes, muscles, ligaments, tendons, aponeuroses, and cartilages, are rarely affected in this way; and the same remark holds good in reference to the arteries, veins, and absorbents. The three latter of these structures, indeed, seem to possess a most astonishing conservative power, and hence it is not uncommon to find them retain their integrity in the midst of the sphacelated part. In malignant scarlet fever, attended with mortification of the tonsils and upper part of the neck, I have several times seen the carotid go on in the performance of its function, and the individual recover, notwithstanding the detachment of immense sloughs of the skin and cellular substance; and similar phenomena have often been witnessed in mortification of the inferior extremities." — *Gross.*

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[*] "When any part of the body loses all motion, sensibility, and natural heat, and becomes of a brown livid or black color, it is said to be affected with sphacelus. When the part becomes a cold, black, fibrous, senseless substance, it is termed a slough. As long as any sensibility, motion, and warmth, continue, the state of the disorder is said to be gangrene."

Mortification is almost universally preceded by inflammation; and the hight of the inflammatory action will sometimes furnish us with a pretty certain index to the nearness of its approach. "Hiccough," says Sir Astley Cooper, "is the characteristic sign of gangrene, in whatever part of the body it is situated. The fact is, when gangrene arises from a diseased state of the constitution, the stomach is extremely deranged, and this derangement is followed by a spasmodic contraction of the diaphragm, producing hiccough."

Any cause which prevents the entrance of arterial blood, will give rise to mortification. This fact is exemplified in the occurrence of strangulated hernia, in the application of ligatures, &c. Poisons, excessive lacerations, extreme cold or heat, great pressure, and paralysis in debilitated habits, are frequent causes of the death of parts.

Treatment.—The most important indication in the general treatment, is to maintain the free circulation of the blood, as it is upon this fluid that the vitality of every part is dependent. Capsicum, compound tincture of myrrh, or any other of the permanent stimulants, must be taken in large and frequent doses. Stimulating liniments with lively friction, should be applied to the entire body. Should this treatment not increase the volume and frequency of the pulse, the vapor bath must be applied two or three times a day, in addition to the other means.

Local Treatment.—When the affected parts are situated externally, a poultice, made of the dregs of myrrh, sprinkled over with capsicum, must be immediately applied, and renewed every three hours, or its use should be alternated with that of a poultice made of the diaphoretic powders, with wheat or rye flour enough to give it adhesiveness. Before this is applied, its surface should likewise be sprinkled with capsicum, or pulverized cloves or cinnamon. At each renewal or change of the poultices, the parts should be saturated with the anti-spasmodic tincture, or the compound tincture of myrrh.

The pyroligneous acid, is perhaps the most active antiseptic that we possess, and if it is at hand, should always be preferred to our less active agents. The acid should be freely applied three or four times a day, by means of a feather, cloth, or sponge. A cataplasm of charcoal and yeast, is excellent in mortification.

When mortification is threatened in the internal organs, as in the bowels and stomach, the same medicines may be taken internally, as per stomach, and by injection. The pyroligneous acid, which is very analogous to vinegar and equally safe to take, should be used, of proper strength, three or four times a day. Charcoal, compound tincture of myrrh, and capsicum, must likewise be freely used.

MUMPS.

(*Parotitis.*)

THIS is an affection of the parotid glands, which are situated below the ears and immediately behind the angles of the jaws. The disease is contagious, and is sometimes known to prevail epidemically.

Mumps usually occurs but once in the same individual; but it sometimes happens that only the gland on one side is affected, which will not prevent the occurrence of the affection on the other side, at some future period.

Children and young persons, are most liable to this disease.

The mumps is not a dangerous disease, though by taking cold a feverish state of the system may be produced, and the affection may become translated to other glands of the body; thus in the male it may attack the testes, and in the female, the mamæ or breasts. When this takes place, the case may require special and careful attention. The glands affected usually swell very much, but the skin is not discolored. The swelling, in ordinary cases, continues increasing until about the fourth or fifth day, when it will again gradually subside.

Treatment. — It is seldom the case that much medicine is necessary in this affection. The parts should, however, be kept warm, by wearing flannels around them, and some mild diaphoretic teas may be drank. But should the disease prove severe, such remedies as are applicable in other inflammatory affections, should be used. The feet may be bathed in a pail of warm water. A strong tea of prickly-ash bark and wild marjorum should be drank freely, while the bowels are kept open by the use of laxatives.

The *local means* to be used, are also about the same as for other inflammatory affections. A poultice made by scalding equal parts of fine slippery elm bark and flour, with a sufficient quantity of water to form the poultice of a proper consistence, is very good. When the pain is severe, a little fine camphor and lobelia herb, may be sprinkled on the surface of the cataplasm. Liniments made of lobelia, camphor, and ammonia, as strong as the affected parts will bear, are also good.

NIGHTMARE.

(*Incubus.*)

This is an affection that only comes on during sleep; and consists of an interrupted condition of the functions of respiration and the circulation. The brain being thus disturbed, gives rise to frightful dreaming. The difficulty of breathing, and the smothering at the heart, will generally occasion the presentment of danger from violence, as from the intrusion of an assassin, a furious wild beast, or perhaps some demoniac influence.

The difficulty generally arises from indigestion, which causes distension of the stomach and bowels, by the gases or wind that is eliminated by the attending fermentation, and which thus pressing against the diaphragm, crowds the viscera of the chest, so as to produce the oppression already named. A diseased condition of the liver and spleen, and constipation of the bowels, will also sometimes occasion the nightmare. In persons predisposed to the affection, an attack is almost sure to be brought on by taking a heavy meal immediately on going to bed. Nervous irritability, great anxiety of mind, grief, despondency, intense thought, and late hours, are also favorable to it.

The attack generally comes on gradually, and lasts usually for several hours; the patient lies, often without the power of motion or of speaking, groaning and smothering, and evinces the greatest agony.

Treatment.—To overcome the attack or paroxysm, it is generally only necessary to awaken the individual out of his sleep, when he will soon be entirely relieved. But to prevent the return of the complaint, attention to the digestive organs will be necessary. If the stomach is much out of order, an emetic will become necessary. The bowels should be kept free with laxative bitters. The shower bath, taken two or three times a week, is an excellent remedy. The nervine tonic, cascarilla, and various other simple articles, will be found useful.

OBSTRUCTED MENSTRUATION.

(*Amenorrhœa.*)

Treatment. — The various emenagogues, found in materia medica, will all be found useful; some individuals will find more benefit from one article, and some from another. Among the most useful and certain emenagogues is the black cohosh, which should be well dried and used in a tea, as much as the patient can take without producing headache and dizziness.

The emenagogue infusion, if taken freely at the proper time, will be found an excellent preparation for this difficulty. While using it, the feet should be well bathed in warm water, before a hot fire, the patient being surrounded with a blanket, and drinking some tincture of myrrh or some other warming medicine to promote perspiration.

Stimulating bitters are clearly indicated, and as a remedy of this kind, the following is a good example:

℞ Motherwort, ...	2 ounces,
Cascarilla, or Poplar bark, .	1 ounce,
Wild Ginger, ...	2 ounces,
Black Cohosh, ...	2 "
Capsicum, ...	1 ounce.

Pulverize and mix. For use, one ounce should be scalded in a pint of boiling water, strained and sweetened, and drank through the course of a day.

The various oxides of iron are very good for this disease. The common iron rust or iron filings may be taken in molasses in half tea spoonful doses.

PALPITATION OF THE HEART.

"AN irregular beating and fluttering motion of the heart, very frequently attends dyspepsia, sick-headache, neuralgia, asthma, consumption, hysteria, gout, constitutional debility, and in persons of nervous temperament, it is frequently occasioned by any slight derangement of the system. The use of strong coffee, tobacco, an oppressed condition of the stomach from food that is hard of digestion, grief, anxiety, or any sudden emotion of the mind, will, in some, occasion irregular throbbing and fluttering motions of the heart."

The beating of the heart is sometimes so violent, that it may readily be perceived by the eye or even the ear of a by-stander. The affection is usually attended with a difficulty of breathing, paleness of the countenance, and a purple color of the lips.

These symptoms are, however, not always the effects of functional derangement; but may result from organic disease of the heart or its large vessels. When this is the case, it is generally very difficult to cure.

Treatment.—When the palpitation is symptomatic of some other affection, it will generally give way to the means appropriate to those affections. When there seems to be little other disturbance of the body, the difficulty may generally be relieved by one or two good doses of the nervine tincture, or of the tincture of assafœtida.

The stomach and bowels in this affection, must always be kept in good order by appropriate means; and should any irregularities in the circulation occur, these must also receive prompt attention. The symptoms must point out the means that should be used, whether they ought to be relaxants, stimulants, or evacuants.

The use of capsicum, with an occasional dose of the nervine tincture, will be found very good to prevent palpitation of the heart. The nervine preparation recommended for hysterics, will also be found quite useful in this complaint.

PALSY.

(*Paralysis.*)

When the sensation, or voluntary motion of a part of the body is impaired or lost, the part is said to be palsied. In rare cases, the sensation and the power of motion are both destroyed at the same time.

Palsy usually attacks only one side of the body, and often only a portion of this, as a limb, shoulder, or hip. Sometimes, however, parts of both sides may be attacked together.

When palsy occurs in the whole of one side of the body, it is called *hemiplegia;* if both the inferior extremities, from the hips downward, are paralyzed, it is called *paraplegia;* and when only some one particular part is affected, it is usually called *paralysis partialis,* by authors.

The disease usually comes on suddenly, with the immediate loss of sensation or motion, or both; but in some instances this is preceded by a numbness, coldness, and paleness, and sometimes by slight convulsive twitches. When the head is much affected, the eye and mouth are occasionally drawn to one side, the memory and other mental functions are impaired, and the speech is indistinct and incoherent. When the extremities are affected, and the disease is of long duration, there is often considerable flacidity and wasting of the muscles of the limbs.

Palsy is caused by injuries or affections of the brain, spinal marrow, or of the nerves themselves. Hemiplegia is generally produced by affections of the brain; paraplegia, by those of the spinal marrow; and paralysis partialis, by disease or injuries of the nerves of the part.

Treatment.— Immediately on the attack of palsy, the body should be well bathed with the stimulating liniment, which ought to be applied with considerable friction; then the patient, after taking a dose or two of a strong tea of capsicum, should be placed in the vapor bath. The heat of the bath must be gradually raised, until it is as high as is comfortable for the patient.* After a free perspiration is produced, the patient must be taken out, and after being well rubbed and dried with a coarse towel, he should have another bathing of the liniment, and then be placed in bed, with a hot stone to the feet. A strong tea, made of equal parts of capsicum, valerian, and skullcap, should now be drank freely, so as to produce a general perspiration.

The affected parts should now be well bathed with the stimulating liniment or the bathing drops, as often as once in four or five hours; and once a day, some of the rubefacient oil, mixed with an equal quantity of the extract of Peruvian bark, or of quinine, should be applied to the paralyzed parts, and the tract of the nerves leading to them.

This course of treatment should be renewed every day, until permanent relief is obtained. It is well to keep the parts warm between the bathings, by means of flannels.

Rubbing the parts well along the course of the nerves, and also the spine, will sometimes prove very beneficial.

In cases of partial paralysis, a cure may generally be effected by the simple use of the liniments, and stimulating nervine teas.

PILES.

(*Hæmorrhoids.*)

The pile is a very common affection of the veins of the rectum, which occurs in both sexes, and in all classes of society.

The patient first experiences a singular itching and uneasiness about the parts, which is soon followed by an enlargement of the veins, causing tumors that are filled with dark blood. These tumors, which are sometimes from three to six in number, are extremely painful, particularly on going to stool.

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* Care must be taken during the use of the bath, so as not to raise the heat too high, as the patient will sometimes not be able to judge the temperature, from the loss of sensation; and this remark will also apply to the use of hot stones, or other hot applications to the diseased parts.

When the bowels are in a constipated state, it is often very difficult to procure a passage, owing to the obstruction produced by the tumors; but the attendant irritation brings on tenesmus and bearing down, which forces down the hardened passages, often bringing with them the tumors when they are situated low in the bowel. If they are large, they will usually remain without, and thus prove a source of great annoyance. But the tumors frequently burst, and thus will bleed sometimes very profusely.

When the piles bleed, they are called *open* or *bleeding* piles, and when they do not, they receive the name of *blind* piles. When the tumors are situated high up in the rectum or bowel, they are called *internal* piles, while those that are pushed down without, are called *external* piles.

Piles are occasioned by a relaxed condition of the parts, which may arise from the use of drastic purgatives, particularly those that spend their influence chiefly on the lower part of the intestines, such as aloes, and the most of the pills now offered to the public. Habitual costiveness, sedentary habits, and heavy lifting, may also bring them on.

Piles are seldom dangerous, unless they become so from the excessive loss of blood that they sometimes occasion.

Treatment.—Recent cases of piles may soon be relieved by the use of astringent injections. The bowels must, however, always be kept regular by the use of proper diet, or by means of the laxative bitters.

Old and confirmed cases of piles are sometimes considerably difficult to cure. In the treatment of these, it is necessary, in the first place, to get the bowels into a good condition by the use of laxatives, and laxative enemas. The use of astringent injections must then be commenced, and continued three or four times a day. In the meantime the pile ointment must be applied by smearing it on a rag or bit of linen, which should then be introduced into the bowel, and left to remain until the syringe is used, when it should be renewed.

Sometimes the tumors grow hard and very irritable, and in this state will not readily yield to the foregoing treatment. When this is the case, it is sometimes best to touch them slightly with some moistened caustic potash, two or three times a day, for a day or two, and then, after washing them off with an astringent preparation, heal them up with the stramonium, or pile ointment.

PLAGUE.

(*Pestis.*)

The plague is an oriental disease, infesting the eastern borders of the Mediterranean; but it seems not to be confined to these parts, as we have in history some deplorable accounts of its ravages at Marseilles, Moscow, London, and elsewhere. Egypt, Asia Minor and Greece seem to have suffered most from this dreadful disease. In the days of Hypocrates, it made dreadful ravages at Athens, and the unprecedented success of that individual, in the management of this epidemic, did much in gaining for him his immortal character.

It appears that the plague possesses many of the characteristics of a typhus affection. But some late writers class it among the exanthematous diseases; yet even this does not argue much against its being typhus, as *typhus fever*, as well as *typhoid*, are often attended with considerable eruption. The eruption of this disease consists of pustules, carbuncles, and buboes of a white, livid, or even black color.*

The disease is usually ushered in with a sense of languor, lassitude and chills, but is soon followed with an intolerable heat, almost consuming to the entrails. There is intense headache, which is most severe in the temples; the tongue is usually much swollen, (which is by some considered a marked symptom of the plague,) and is covered with a white fur, glistening in the centre. A remarkable staggering generally sets in, in the early part of the disease, and ofttimes the patient is seized with violent delirium, which sometimes sets in soon after the attack commences. There is considerable pain in the region of the heart and stomach; vomiting is likewise a very common symptom, which is attended with a sense of faintness and sinking. The countenance becomes haggard, and the features distorted, presenting a hideous appearance. The skin is dry and harsh, and the pulse accelerated, but small and contracted, and ranges from 115 to 130 to the minute. Respiration is laborious, and the speech indistinct and tremulous. Darting pains are experienced in various parts of the body, but especially in the axilla and groins, producing in those parts carbuncles and buboes, according to the tissues that become affected. The strength generally declines with terrible rapidity, and the patient sinks with the deepest anguish and despair into the arms of death.

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* A grade of continued fever occurs in this country, commonly called *cold plague*, *congestive fever*, &c., which has been associated with this disease by some physicians, but without just reason. The treatment of congestive fever differs little from that of the malignant grade of remittent, with which it is identical. The local hyperæmia, or congestions, may, however, need special attention, and may generally be obviated by equalizing the circulation, together with the use of counter-irritants.

Treatment.— Awful as this disease is, it nevertheless admits of successful medication. After raging through Egypt, Lybia, Persia, Syria, Cyprus, Lemnos, and other isles of the great sea, the plague seemed to pour with tremendous fury into Greece, and to threaten the entire depopulation of Athens. The eloquent Robinson describes the suffering of the inhabitants thus: "The diseased were first smitten in the head; from this, the malady passed down through the whole body, leaving in one shapeless, ruined mass, that noble form divine. But the sufferers seldom waited for this terrible catastrophe; but, in the beginning, in the fury of distraction, plunged into wells, rivers, and the sea, to quench the consuming fire which devoured within them!" And yet, at this dreadful juncture of ruin, Athens was delivered by a single man—the immortal Hippocrates, who, as with Egyptian magic, stayed at once the traveling besom.

The proper treatment of plague varies little from that for *yellow fever*, but should always be prompt and vigorous. Bathing, above all other means, seems to have been of the most benefit in the treatment of this dreadful malady. Hippocrates depended chiefly on this, and the free use of stimulants. It is said, that by an elevated temperature the morbific contagion causing the disease may be destroyed; and does this not give some useful hints in favor of hot bathing? This doctrine is well corroborated by the conduct of that chief of physicians already mentioned, in staying the progress of this malady at Athens; he built large fires in all the streets and alleys in the city, evidently thus to heat and purify the air; and this, together with the use of the baths, stimulants and tonics, were, indeed, the principal means employed on this occasion. But if the treatment recommended for yellow or typhus fever be perseveringly instituted in the management of plague, reasonable success may well be expected.

POISONING.

Poisoning may happen from accident or design, and may be produced by a great variety of agents found in the mineral, vegetable and animal kingdoms. Poisons are generally divided into six classes, viz: 1, the *corrosive or escharotic;* 2, the *astringent;* 3, the *acrid;* 4, the *narcotic and stupefying;* 5, the *narcotico-acrid;* and 6, the *septic or putrescent.*

As there are some important peculiarities attendant on a number of the most prominent poisons, it is best to consider those separately.

Mercury and its preparations.—Dr. Pareira, of London, who has treated on the poisonous effects of mercury at length, states: "When large doses of some of the soluble salts of mercury have been swallowed, gastro-enteritis [*inflammation of the stomach and bowels*] is produced. The patient complains of an acrid styptic taste in the mouth, and a feeling of burning and tightness in the throat; the face is usually flushed and sometimes swelled; violent vomiting and purging (frequently of bloody matters) soon come on, the vomiting being increased by everything taken into the stomach; oftentimes there is irritation of the urinary passages, and sometimes even suppression of the urine; the pulse is small, frequent and contracted; the respiration difficult; the extremities cold. In some cases, *salivation* is produced: this seldom comes on during the first twenty-four hours, and is not often delayed beyond the fourth day. Toward the termination of the case, some indications of *disorder of the cerebro-spinal system* comes on, such as slight drowsiness and stupor, or even coma; tremors and twitchings of the muscles, and sometimes even violent convulsions; in some cases, paraplegia. These symptoms terminate in death. Post-mortem examination discovers inflammation (and its consequences) of the gastro-intestinal membrane."

The following description of poisoning by the muriate of mercury is given by Dr. Wood in the United States' Dispensatory: "Swallowed in poisonous doses, it produces burning heat in the throat, excruciating pain in the stomach and bowels, excessive thirst, anxiety, nausea, and frequent retching with vomiting of bloody mucus, diarrhœa, and sometimes bloody stools, small and frequent pulse, cold sweats, general debility, difficult respiration, cramps in the extremities, faintings, insensibility, convulsions, and death. The mucous membrane of the stomach exhibits, on dissection, all the signs which mark the action of a violent corrosive poison."

Salivation.—Mercury frequently exhibits its most violent effects on the mouth and throat, in producing what is technically called *ptyalism.* "The first observable effects of mercury in inducing ptyalism are a coppery taste in the mouth, a slight soreness of the gums, and an unpleasant sensation in the sockets of the teeth when the jaws are firmly closed. Shortly afterward the gums begin to swell, a line of whitish matter is seen along their edges, and the breath is affected with a peculiar and very disagreeable smell, called the mercurial fetor. The saliva, at the same time, begins to flow; and if the affection proceeds, the gums, tongue, throat and face are much swollen; ulcerations attack the lining membrane of the mouth and fauces; the jaws become excessively painful; the tongue is coated with a thick, whitish fur; and the saliva flows in streams from the mouth. It occasionally happens, that the affection thus induced in the mouth proceeds to a dangerous extent, inducing extensive ulcerations, gangrene, and even hæmorrhage."

A case of salivation came under the notice of the author, in which the entire cheek was mortified, being almost perfectly black from the nose to the ear, and from the prominence of the malarum to the angle of the jaw. The sides of the neck were also black, as well as several places on the body. In this situation, the child lived several days and nights in the greatest agony. Cases of very extensive sloughing of various parts of the mouth and throat, are not of unfrequent occurrence. The author assisted, a short time since, in a plastic operation for a new cheek, where the soft parts of one side of the face, from the prominence of the cheek down to the neck, had been entirely sloughed away from the effects of mercury.

The sloughing and ulceration of the mouth and throat often continue until the bones become implicated; the teeth loosen and fall out; the gums decay, and the bones of the face rot away; and thus sometimes there is produced the most hideous deformity.

"A very frequent consequence," says Dr. Pareira, "of excessive mercurial salivation, and the attendant ulceration and sloughing, is contraction of the mucous membrane in the neighborhood of the anterior arches of the palate, whereby the patient is prevented from opening the mouth, except to a very slight extent. I have met with several such cases. In one, (that of a female,) it followed the use of a few grains of blue pill, administered for a liver complaint. The patient remains unable to open her mouth wider than half an inch. Several operations have been performed by different surgeons, and the contracted parts freely divided, but the relief was only temporary. In another instance, (that of a child four years of age,) it was produced by a few grains of calomel. Though several years have elapsed since, the patient is obliged to suck his food through the spaces left between the jaws by the loss of the alveolar process."

Erethismus.—This affection, which is commonly called *mercurial disease*, is not an uncommon attendant of the use of mercury even in common practice. It comes on with great depression of strength; a sense of anxiety about the præcordia; irregular action of the heart; frequent sighing; trembling; a small, quick, and sometimes intermitting pulse; occasional vomiting; a pale, contracted countenance, and a sense of coldness and languor. The system is extremely irritable, and morbidly sensitive. These symptoms continue on increasing in severity, until the patient sinks in death.

Neuralgia from the effects of Mercury.—Various painful affections of the nerves, are found to follow the use of mercury. The pains wander through the system, giving rise to extreme restlessness and suffering, which is always increased on any change of the weather or the state of the atmosphere. It is very common to hear people complain of mercurial *rheumatism* and *pains in the bones.* Many people, from these sufferings, have a thousand times wished themselves dead, to be out of their misery. Shaking palsy is also a result of the injurious effects of mercury on the nerves.

Enlargements of the Glands.—Glandular enlargements, particularly of the liver, spleen, mesenteric glands, pancreas, &c., are occasional results of the poisonous effects of mercury. Chronic diseases and enlargements of the liver, are now infinitely more common than they were before the great "*regulator of the secretions*" was so much in use.

Authors also furnish us with detailed accounts of mercurial purging, mercurial bloating, mercurial fever, mercurial erysipelas, mercurial leprosy, mercurial exanthemous, and miliary eruptions, mercurial sore eyes, mercurial paralysis, mercurial epilepsy, mercurial apoplexy, mercurial asthmas, mercurial cancers, mercurial dyspepsia, mercurial hypochondriasis, mercurial consumption, mercurial dropsies, mercurial affections of the bones, periosteum, joints, heart, kidneys, brain, spinal marrow, &c., &c.

ARSENIC.—This is one of the most fatal corrosive poisons, and is the article generally used for criminal purposes or self-destruction. "The symptoms it produces are an austere taste; fœtid state of the mouth; frequent ptyalism; continual hawking; constrictions of the pharynx and œsophagus; the sensation of the teeth being on edge; hiccough; nausea; anxiety; frequent sinkings; burning pain in the præcordia; inflammation of the lips, tongue, palate, throat, and œsophagus; irritable stomach, so as not to be able to support the blandest drinks; vomiting of matters, sometimes brown, at other times bloody; black, horribly fœtid stools; small, frequent, concentrated and irregular pulse, but occasionally slow and unequal; palpitations; syncope; insatiable thirst; burning heat over the whole body, or a sensation of icy coldness; difficult respiration; cold sweats; scanty, red and bloody urine; change in the countenance; a livid circle around the eyelids; swelling and itching of the body; livid spots over the surface, and occasionally a miliary eruption; prostration of strength; loss of feeling, especially in the feet and hands; delirium; convulsions, often accompanied with insupportable priaprism; falling off of the hair; detachment of the cuticle, &c. Sometimes there exists inflammation and burning pain in the urino-genital organs. It is very rare to observe all these symptoms in the same individual. In some cases, indeed, they are nearly all wanting, death taking place without any pain or prominent symptom. After death, the morbid appearances are various. In some cases, no vestige of lesion can be discovered. The appearances, however, in the generality of cases, are the following: The mouth, stomach and intestines are inflamed; the stomach and duodenum exhibit spots resembling eschars, and perforations of all their coats; and the villous coat of the former is in a manner destroyed, and reduced to the consistence of a reddish brown pulp.

"Dr. Christison divides the poisonous effects of arsenous acid into three orders of cases, according to the character and violence of the symptoms. In the first order, the poison produces symptoms of irritation and inflammation along the course of the alimentary canal, and commonly kills in from one to three days. In the second, the signs of inflammation are moderate, or even altogether wanting, and death occurs in five or six hours, at a period too early for inflammation to be always fully developed. In the third order of cases, two stages occur, one in which inflammatory symptoms are developed, as in the first order; the other, marked by symptoms referable to nervous irritation, such as imperfect palsy of the arms or legs, epilepsy, tetanus, hysterical affections, mania, and coma. It is a general character of this poison to induce inflammation of the stomach in almost all instances, provided death does not take place immediately, whatever be the part to which it is applied. Thus the poison, when applied to a fresh wound, will give rise to the same morbid appearances in the stomach and intestines, as when it is swallowed. In some cases noted by Drs. Mall and Bailie, the rectum was much inflamed, while the colon and small intestines escaped."

ANTIMONY.—The symptoms of poisoning by antimony and its preparations, do not differ in many respects from those that characterize poisoning by most other active corrosive articles. There is usually a metallic taste; nausea; copious vomiting; frequent hiccough; burning pain in the stomach; colic; violent purging, attendant with griping pains; fainting; small, contracted, and sometimes accelerated pulse; difficult respiration; difficulty of swallowing; coldness of the skin; convulsive movements; painful cramps, particularly in the legs; prostration; insensibility, and death. The tartrate of antimony and potassa, or *tartar emetic*, is the most common form in which the poison is taken.

The other mineral corrosive and escharotic poisons, such as bismuth, copper, lead, zinc, tin, nitre, and their preparations, produce symptoms so near like those attending poisoning by mercury, arsenic and antimony, that it is not necessary here to give a separate description of them.

ACIDS.—When acids are taken in poisonous doses, the symptoms differ, in some respects, from those of the metallic corrosives and escharotics. The patient will generally experience a sour, acrid taste; burning in the throat, which is increased by pressure, swallowing or coughing; pain in the stomach, accompanied with eructations; vomiting; a corroded condition of the membranes of the mouth, throat and stomach. The countenance is glazed, and the skin cold.

The matter thrown up effervesces with lime and soda. Nitric acid occasions yellow stains, and sulphuric acid, black.

ALKALIES.—The alkaline poisons, such as carbonate of potash, ammonia, &c., produce "violent caustic, acrid taste; great heat in the throat, with destruction of the lining membrane; difficult and painful deglutition; vomiting of bloody matter, which turns the yellow of tumeric brown; acute pain in the stomach; cold sweats; weakness; hiccough; violent colic pains, with purging of bloody stools and membranous flakes; and death."

The materials thrown up, will effervesce with vinegar and the other acids.

ALCOHOL. — When alcohol is taken in excessive doses, it is frequently followed with violent symptoms, and occasionally by death. The symptoms are violent intoxication; delirium; irritability of the stomach; vomiting; apoplexy; paralysis; and sometimes convulsions.

The breath generally smells of the liquor, by which the case may usually be distinguished from other affections.

GASES. — Carbonic acid gas, when respired, produces spasms of the glottis; great difficulty of breathing; dimness of sight; loss of strength; and, finally, insensibility, apoplexy, and speedy death. It is this gas that is called *damps*, in wells and caverns. It is also produced by the burning of charcoal; and thus, by carelessness, or a want of knowledge of its fatal effects in close rooms, many persons are destroyed by it.

Chlorine, when inhaled, produces violent irritation of the organs of respiration; cough, with a raising of blood; and permanent pulmonary diseases.

NARCOTICS. — The narcotic poisons, such as the deadly nightshade, opium, jimson, foxglove, hemlock, &c., when taken into the system, give rise to symptoms differing considerably from those attending all the other poisons. Soon after the poison is taken, the subject will feel a sense of heaviness in the head, stupor, and a peculiar numbness; there is a disposition to vomit, which soon becomes pressing. A kind of intoxication will take place; the pupils of the eyes will dilate, and the patient falls into a deadly sleep, or perhaps becomes affected with mirthful delirium, or, on the other hand, a furious craziness; there is great anxiety and dejection; the pulse is variable, but at first full and strong. Convulsions of various parts of the body, and palsy of the limbs. often set in, and, if not relieved, the patient soon sinks in death.

ANIMAL POISONS. — The poisons communicated to the body by the bites or stings of serpents and insects, present a train of symptoms that are somewhat peculiar. The bite of a venomous serpent, as from the copperhead, moccasin, viper, rattlesnake, &c., is immediately followed with a sharp and intolerable pain, that soon extends to the surrounding parts. The bitten parts soon swell considerably, and in some instances the entire body becomes very much swollen; the color of the skin is various, at first pale, then reddish, yellow or greenish, and livid. Faintings, vomiting, and sometimes convulsions, set in; the pulse is frequent and irregular; the breathing difficult, and the mental faculties sometimes very much deranged.

The inflammation of the bitten parts generally ends in resolution; but not unfrequently in ulceration, and even sometimes in mortification.

The stings of insects are not generally followed with much inconvenience, except the intolerable pain and the swelling that usually attend them.

Treatment. — The treatment of poisoning varies very much, — depending entirely on the nature of the cause or agency by which the affection is instituted.

The first thing to be done, when any of the metallic corrosive or escharotic poisons are taken into the system, is to excite vomiting as quick as possible. This may sometimes be done best by tickling the fauces or throat with a feather. But if this does not readily excite free or copious vomiting, a full dose of lobelia should at once be taken, and repeated once in four or five minutes, until the stomach is well cleansed. Should the lobelia (owing to the blunted condition of the nerves) not operate promptly, a dose of equal parts of ipecac, blood-root, capsicum and bayberry must be given as soon as possible.

This being done, the patient should take some of the white of eggs, beat in a bowl or other vessel, in half tea cupful doses, once in from half an hour to an hour, until three or four doses are taken. For this purpose, the mucilages of slippery elm, flaxseed, or comfrey, may be used, but they are not so good as the albumen of eggs. Sweet milk is also recommended by authors for this purpose.

After the poison is evacuated, and the urgent symptoms are removed, the patient should continue to drink, occasionally, some mucilaginous preparations, with a view to soothe and heal the stomach. The remaining treatment must be regulated according to the symptoms.

In cases of salivation and ulceration of the mouth, a strong tea of the astringent tonic should be used to wash the parts, which may be done by means of a swab. To correct the intolerable fetor, a solution of the chloride of lime or of soda should be used. Two drachms of the chloride may be added to a pint of water, and the parts washed with it three or four times a day.

The healing process may now be commenced with the use of the compound tincture of myrrh, which should at first be diluted with water, and applied to the affected parts freely. The compound recommended for aphtha or thrush, should be employed freely as a wash. Sugar of lead seems to possess a chemical control over the disease, and may be used in a mild solution occasionally after the other medicines have been applied.

The internal remedies should consist of alteratives, stimulants and tonics. The tincture of myrrh, sarsaparilla, and narrow dock root, are all good.

The alterative syrup, given by Dr. Beach, is a very good medicine in the treatment of mercurial diseases; it is made as follows:

℞ American or foreign Sarsaparilla,	6	ounces,
Guaiacum shavings, ...	3	"
Sassafras-root bark, ...	2	"
Elder flowers, ...	2	"
Burdock root, ...	2	"

Add of cheap spirits and water, each one gallon; boil, and pour off the liquid; then add water repeatedly, and boil till the strength is obtained; strain, and reduce to sixteen porter bottles full; then add twenty-five pounds of clarified sugar. Let it stand twenty-four hours to settle; pour off, and bottle for use. The dose is a wine glassful, three times a day.

A plaster made of Venice turpentine and sulphur, may be applied to the parts externally, by means of strips of cloth suited to the locations of the disease.

When the concentrated acids are swallowed, it is not advisable to give an emetic. The inconvenience of their use in these cases, is, that they will not operate promptly, and, what is more, the acids are likely to augment the mischief by being thus agitated in the stomach, and carried up again through the œsophagus and mouth. The acids may be effectually neutralized by the agency of the alkalies.

For poisoning by the sulphuric, muriatic, citric and acetic acids, the carbonates of soda, potash, lime and magnesia, may be taken indiscriminately. But for the nitric and oxalic, carbonates of magnesia, and lime, can alone be employed with safety.

It is very important, when sulphuric acid is taken internally, or applied to the surface, to observe the precaution not to take or apply water, as this, with the acid, will produce a very considerable heat, and thus materially enhance the mischief.

The acids, in turn, are the proper antidotes for poisoning by the alkalies. The vegetable acids are always to be preferred. Vinegar, lemon juice, or citric or tartaric acid in solution, should be taken freely until relief is obtained. The fixed oils, such as castor, linseed, almond, and olive, form soaps with the free alkalies, and thereby destroy their caustic effects.

Poisoning by alcohol, requires active emetics of lobelia. When the medicine cannot be given per stomach, it must be administered by injection. When the patient is feverish, the shower bath is very useful. The lobelia should be continued, in broken or emetic doses, as the case may require.

Cold effusions to the head, are very good in cases of poisoning by the gases. Stimulating liniments and rubefacients are required when the heat of the surface is low. When the vital energies are much exhausted, the vapor baths and active stimulants, such as capsicum and the tincture of myrrh, must be used.

When any of the narcotic or stupefying poisons are taken, the patient must immediately have an emetic of ipecac and lobelia in equal parts. The bowels must also be well evacuated, by means of stimulating and laxative enemas.

As soon as the alimentary canal is cleared of the poison, the patient should take vinegar freely, as strong as it can be drank; and this article, diluted, ought also to be administered by injection.

The entire surface should be bathed once every hour or two, with a preparation made by scalding a table spoonful of capsicum in a pint of good vinegar.

The vapor bath is also an excellent means in poisoning from narcotics; the vapor should be applied to the whole body, keeping the head cool by means of cloths dipped into cold vinegar.

Poisonous bites must be treated with applications made by bruising or pounding into a pulp, equal parts of lobelia and the large plaintain taken in the green state, or if dry, they must be moistened with warm water. This poultice should be renewed every two hours, until the pain ceases and the inflammatory symptoms subside. The blue or wild violet, bruised and applied to the wound, is said, by high authority, to cure a snake bite in a very short time; and it is said that this is a plant that some of the Indian tribes employed for this purpose.

Broken doses of lobelia should also be taken internally; and if there is much sickness, the portions must be increased so as to procure vomiting. Other attending symptoms must be treated according to their character and urgency.

The stings of insects seldom require medical treatment; but if there is much swelling, the application recommended for poisonous bites, will be found useful. The anti-spasmodic tincture, and also the sour tincture of lobelia, are very good to bathe the parts with.

RHEUMATISM.

(*Rheumatismus.*)

THIS is an inflammatory affection of the fibrous tissues, and is chiefly confined to the articulations, particularly the large ones, as the knees, ankles, hips, shoulders, and elbows. The inflammatory symptoms exhibit various degrees in their violence and duration, and hence the disease has been divided into two varieties, the *acute* and the *chronic*. The disease has also been named after some of its principal locations, thus we have *lumbago*, when it occupies the articulations in the loins; *sciatica*, when it affects the hip; *arthrodynia*, when situated in the other joints.

Symptoms.—Rheumatism comes on with severe pain, which in a day or two is followed with swelling of the joints. There is usually considerable stiffness, or want of mobility. In the chronic variety the skin is never discolored, but in the acute it is generally a little red. The pain is very apt to shift from one joint to another, and sometimes it runs along the course of the muscles connected with the affected joints.

The disease may arise at any time of the year when there are frequent vicissitudes of the weather from heat to cold, but the spring and autumn are the seasons in which it is most common. Young persons are more subject to the acute variety, while in older people the reverse obtains.

Rheumatism is occasioned by cold, and is brought on most generally by wearing wet or damp clothes, working in cold and wet places, &c.

People who are much affected with rheumatism, are very sensitive to the approach of wet weather, as they will be affected with wandering and aching pains through their limbs.

Treatment.—Most old school writers are of the opinion, that rheumatism is but little susceptible of control by medication, and that when it sets in, it generally runs its course, which is from three to six weeks. "One set of physicians," says Dr. Macintosh, "depend entirely upon blood-letting; another upon purging; another upon exciting long-continued profuse perspirations; a fourth upon the exhibition of bark alone; and a fifth upon a course of mercury to produce salivation. It is no wonder, therefore, under such empirical treatment, that an attack of the disease used formerly to continue violent for such a long period of time. Formerly an attack of acute rheumatism, with its consequences, generally confined the patient for twelve months, that is to say, before he regained his ordinary state of health, and few got off with less than six months' confinement to bed." But in the reformed practice, it is seldom the case that more than from three to ten days are required to effect a complete cure.

Ordinary cases of rheumatism may be successfully treated by the use of a powder composed of two proportions of gum guaiacum, and one of the extract of black cohosh, in fine powder, taken in doses of five grains three or four times a day, and to be accompanied with the use of the bathing drops applied to the affected parts frequently, with lively and long continued friction.

In more obstinate cases, it may be necessary to use in connection with this treatment, the vapor bath, and lobelia, in broken but frequent doses. In the most difficult cases, it is necessary to employ the lobelia in emetic doses, and when given in this way, the practitioner should always endeavor to manage so as to bring to bear the full relaxing powers of the medicine. It should be preceded with the vapor bath, and then given in nauseating doses for several hours before emesis is produced.

The use of the vapor bath and lobelia emetics, should be practised every day or every second day, according to the severity of the symptoms, and this course must be continued, until the disease is broken up.

It has already been suggested that the use of the bathing drops and the guaiacum powders, should be continued throughout the entire treatment.

The bowels must be kept open by the use of the laxative bitters.

During convalescence, the patient may take two or three doses of the spiced bitters, daily.

RICKETS.

(*Rachitis.*)

This is a very distressing disease of children, and seldom occurring before the ninth, and after the twenty-fourth month of their age. The disease is characterized by softening and distortion of the bones of the back in the loins. The muscles become flaccid, the head enlarges, the carotids are distended, the limbs waste away, the abdomen swells and grows tense; the stools are frequent and loose, a slow fever succeeds, with cough and difficulty of breathing, and the nervous system becoming more and more affected, the poor little sufferer finally sinks in death.

On dissection, the liver, spleen, and other glands, have been found enlarged and in a scirrhous state.

Treatment.—The general treatment in rickets, should differ little from that recommended for scrofula, but it must be perseveringly used, as this disease is extremely difficult to cure. The alterative syrup, comfrey, and Solomon's seal, are good articles in rickets.

The bowels should be kept open with the use of small doses of the extract of mandrake, taken every evening, or every second evening, as the case may require.

Cold bathing should be practised once every day or two, and the patient ought to be rubbed freely with a coarse towel, or the flesh brush should be used immediately after the cold bath. The stimulating liniment, or bathing drops, should be applied freely all over the body, soon after the friction with the towel or brush.

Mechanical Support.—Physicians of the old school, depend mostly on mechanical means, for relief in rickets. Those means consist chiefly of stays to the small of the back, by means of pads and springs, as well as bandages. It is, however, very obvious, that mechanical means can promise but little toward a final cure, in cases in which the constitutional rickety diathesis is not obviated.

Plasters.—Strengthening plasters will sometimes be found very useful in rickets. After sprinkling a very small quantity of capsicum (if this should prove too irritating, ginger will do) on the surface of the small of the back, a pitch plaster of large size may be laid over it, and worn as long as it will stick. The irritating plaster will generally be found better, however.

Tonics.—Tonics are very important remedies, and should always be used. A tonic cordial may be employed, or the spiced bitters, cascarilla, or any other pleasant bitter or tonic medicine, may be taken three or four times a day.

Regimen.—In this affection, attention to the diet, and exercise, is of paramount importance. The child should not be fed with any food that is hard of digestion; fat meats, cheese, butter, &c., should not be allowed. Nor should it be suffered to exercise too much in an upright position; nevertheless, it must be taken out, so as to get the fresh and circulating air.

RUPTURE.

(*Hernia.*)

THIS affection consists of a breach or rupture of the muscular wall of the abdomen, and the protrusion of some of the viscera of the belly. The parts that are thus forced out, are generally a part of the omentum, or of the intestines, or both. But instances have occurred, in which the stomach, the spleen, uterus, ovaries, and bladder, have been forced through the openings. The protrusion consists of a kind of a sack, composed of a portion of peritoneum, that is pushed out before the intestine or other organ that may be protruded.

The rupture may take place at various parts of the anterior walls of the belly, but it occurs most commonly in the groin, at the upper part of the thigh, and at the navel.

When the hernial contents lie passively in the sack, and admit of being readily put back into the abdomen, it is termed a *reducible hernia;* and when they cannot be readily put back, but yet the passage in the intestine remains free, it is called *irreducible.* In cases of irreducible hernia, in which also the passage in the intestine is obstructed, the difficulty is called *strangulated* or *incarcerated hernia.* Again we have *congenital hernia,* and which, indeed, is of very common occurrence. In this case the extruded viscera are not surrounded with the peritoneum, but descend nakedly through the tunica vaginalis into the scrotum.

Hernia is also variously named, according to the extent and situation of the extruded part; thus, if only a part of the circumference of the intestine forms the tumor, it is called *enterocele;* if a piece of the omentum only, it is named *epiplocele;* and if both the intestine and omentum contribute in the formation of the tumor, it is called *entero-epiplocele.* When the contents of the hernia are protruded at the abdominal ring, but only pass as low as the groin, or labium pudendi, the case receives the name of *bubonocele,* or *ingual hernia;* when the parts descend into the scrotum, it is called an *oschcocele* or *scrotal hernia.* When the parts protrude below Poupart's ligament, it is called *femoral* or *crural;* when at the navel, *exomphalos* or *umbilical;* and when it occurs at any other or promiscuous part of the front of the abdomen, it is called *ventral hernia.*

Treatment.—As soon as a rupture is discovered, gentle efforts should be made to return the protruded parts, which may generally be done with the fingers, in such a way as readily suggests itself to every individual of common judgment. To facilitate the operation, the patient should lie on the opposite side, with his knees drawn up a little, and his head somewhat raised, so as to relax or slacken the muscles of the abdomen. When the parts are returned, the patient should wear a compress or truss, so as to prevent the parts from returning again.

When the parts cannot be readily returned, the system must be well relaxed with lobelia and steam, after which the operation will generally be found more successful.

In cases of strangulation, the patient should be immediately placed over the bath, and should take nauseating doses of lobelia while being vaporized; and on leaving the bath a large dose of lobelia should be given so as to sicken considerably, when by proper management, the difficulty may generally be overcome. But should this method be unsuccessful, the patient should be placed in bed, and be surrounded with some steaming stones, and should have two or three injections of a weak tea of lobelia, in order thus still to extend the relaxation. While this is going on, the practitioner should be engaged very carefully to put back the extruded part. The author has found an application of finely pulverized lobelia seed, moistened with slippery elm mucilage, very excellent as a relaxing means. If the hernia cannot be thus reduced, an operation must be performed with the knife. The operation consists simply in enlarging the opening, so that the extruded parts may be returned, and then closing it again by making a few stitches. This operation, though not very dangerous, should only be entrusted to surgeons or persons of experience.

The rupture may sometimes be healed up without an operation, especially when of recent standing, or when in a young subject, by wearing over it a plaster of the extract of oak bark.

SCROFULA.

Scrofula, or *king's-evil*, as it is sometimes called, is a constitutional disease, which, however, chiefly affects the glandular system, especially the conglobate glands. The disease is most common among children, and rarely makes its appearance for the first time, after the body has attained its full growth. It is supposed that the disease is chiefly hereditary, and is first developed by a depraved condition of the nutritive functions, that the disease of the glands is a secondary effect, and that it is therefore not exclusively entitled to the name *scrofula*. Under this impression, physicians consider a great variety of chronic and difficult diseases, such as cancer, pulmonary tubercles, white-swelling, &c., as being more or less influenced by a scrofulous taint of the system.

The symptoms which are usually considered to indicate the presence of scrofula, are the following:—Slight inflammation and swelling of the wings or outer cartilages of the nose; swelling of the glands of the neck, which increase gradually, and at length become hard, painful, and of an irregular shape. The color of the skin over the glands is scarcely changed, but the protuberance or swelling is sometimes so great, as to constitute considerable deformity, and to interfere with the movement of the head, and with swallowing, or even to prevent opening the mouth. After having remained in this situation for an uncertain period, the tumors may disappear. Such, at least, is usually the case in the grown subject, and it is the most favorable termination; but in young children they more frequently proceed to suppuration. The tumors soften, are painful, and fluctuation is perceptible; the skin covering them becomes red and bluish, and ultimately opens, giving issue to a puriform fluid, which is usually of a thinner kind than that from phlegmonous abscesses; and is mixed with pieces of white substances, resembling curds. The irregular wound, resulting from the spontaneous opening of the abscess, heals with difficulty, and the resulting cicatrix often constitutes an unsightly deformity. Where the scrofulous *vice* tinctures the organism deeply, the scrofulous inflammation first affects one gland and then another, and ultimately the individual may die of consumption, or mesenteric disease.—(*Rostan.*)

In determining as to the existence of scrofula, the practitioner must bear in mind that simple tumefaction of the glands in the neck or any other part of the body, considered alone, is not sufficient evidence of the disease. These may become inflamed and enlarge in healthy constitutions, from the ordinary causes of inflammation. Moreover, there are several other specific diseases, that give rise to swelling in the conglobate glands. We have an example of this character in mumps, (*parotitis,*) and in the presence of ulcers or injuries in the extremities, the glands situated between them and the trunk of the body, soon become inflamed and enlarged. Evident symptoms of constitutional derangement, connected with the local symptoms, can alone be considered true diagnostics of the disease.

Treatment.—In the treatment of scrofula, such a course must be adopted as is calculated to effect a permanent change in the condition of the nutritive and secretive functions. For this purpose the general system must be well relaxed and thoroughly cleansed. The stomach must be kept in order by the use of lobelia emetics; the capillary system, by the use of sudorifics, or diaphoretics, and the baths; the bowels, glandular and lymphatic systems, by the use of mandrake extract, alterative syrup, laxatives, and other depuratives and detergents.

The emetics and baths must be administered once, twice, or three times a week, as the obstinacy of the case may require. In the meantime the patient should take the alterative syrup three times a day, in doses large enough to keep the bowels loose. Should there be difficulty in keeping the bowels in this condition, the common cathartic powders, pills, or mandrake extract may be taken, occasionally, with the syrup.

Local Treatment.—The tumor in the indolent state, may often be discussed by accompanying the general treatment with local applications. An ointment, made by mixing together equal parts of the stramonium and iodine ointments, should be laid on the tumor, and a plaster of it laid over the whole of the swelled gland. This application should be alternated with a stimulating and relaxant poultice, to be applied four hours every second day. But if the tumor, in spite of this treatment should proceed to suppuration, it must be treated after this, in the same manner that is proper for an occult or open scrofulous tumor.

When the tumor is open, it must be well washed out, first with soapsuds, and then with a strong astringent tea, made of bayberry, cranesbill, pond-lily, and sumac bark. After this, the ointment for scrofula should be applied, and worn over the sore, renewing it morning and evening, until it is healed. At the dressings, the sore must always be well cleansed with astringent or alkaline washes, as the case may require. The solution of chloride of soda or lime, should occasionally be used as a wash, especially if the sore is very foul.

When the sore is very indolent and difficult to heal, a powder of equal parts of capsicum and mandrake root may occasionally be sprinkled on it. For this purpose the tincture of myrrh is also very good.

Regimen.—Nothing is more important in the treatment of scrofula, than proper attention to the diet and general habits of the individual. Fat meats, gravies, rich pies, &c., should never be eaten by a patient of scrofulous habits. Pork is particularly injurious, being peculiarly calculated to favor the scrofulous diathesis. Indeed, it is supposed by many that the disease, in the majority of instances, is brought on by the use of swine flesh, either directly, or indirectly through the parent. It is even true that the name of the disease comes from *scrofa*, the Latin name of the hog; but this is in consequence of the disease having so near a resemblance to the common throat disease of that animal.

Vegetables constitute the best food for patients of scrofulous habits. Free exercise in the open air, is also very important. Alcoholic drinks must be sedulously avoided.

SCURVY.

(*Scorbutus.*)

The scurvy is a very distressing disease that is characterized by extreme debility; emaciation; pale and bloated countenance; spongy gums; livid spots on the skin; offensive breath; œdomatous swellings in the legs; hæmorrhages; foul ulcers; fœtid urine, and extremely offensive stools. The scurvy is a disease of a putrid nature, much more prevalent in cold climates than in warm ones, and which chiefly affects sailors, and such as are shut up in besieged places, owing, as is supposed, to their being deprived of fresh provisions, and due quantity of acescent food, assisted by the prevalence of cold and moisture, and by such other causes as depress the nervous energy, as indolence, confinement, want of exercise, neglect of cleanliness, much labor and fatigue, sadness, despondency, &c. These several debilitating causes, with the concurrence of a diet consisting principally of salted or putrescent food, will be very apt to produce this disease. It seems, however, to depend more on a *defect* of nourishment, than on its vitiated state; and the reason that salted provisions are so productive of the scurvy is, most probably, because they are drained of their nutritious juices, which are extracted and run off in brine. As the disease is apt to become pretty general among the crew of a ship when it has once made its appearance, it has been supposed by many, to be of a contagious nature; but the conjecture seems by no means well founded.

"A preternatural saline state of the blood has been assigned as its proximate cause. It has been contended by some physicians, that the primary morbid affection in this disease is a debilitated state of the solids, arising principally from the want of aliment. The scurvy comes on gradually, with heaviness, weariness, and unwillingness to move about, together with dejection of spirits, considerable loss of strength, and debility." As it advances in its progress, the countenance becomes sallow and bloated, respiration is hurried on the least motion, the teeth become loose, the gums are spongy, the breath is very offensive, and livid or black spots appear on different parts of the body. These are sometimes quite small, and circular, appearing sometimes in groups. In some places, these discolorations look like bruises or contusions. Old wounds which have been long healed up break out afresh; severe wandering pains are felt, particularly by night; the skin is dry; the urine small in quantity, turning blue vegetable infusions of a green color; and the pulse is small, frequent, and, toward the last, intermitting; but the intellects are, for the most part, clear and distinct. By an aggravation of the symptoms, the disease, in its last stage, exhibits a most wretched appearance. The joints become swelled and stiff; the tendons of the legs are rigid and contracted; general emaciation ensues; hæmorrhages break out from different parts; fœtid evacuations are discharged by stool; and a diarrhœa or dysentery arises, which soon terminates in death.

What is called *land scurvy*, or that form of the disease that occurs on the shore, or where the individual is not subject to the various remote causes, as above enumerated, the disease is always more mild. Blotches with scaly eruptions on different portions of the body, a sponginess of the gums, and debility, are among the most prominent symptoms observed in these cases. But occasionally a case occurs in which the purple or black spots and spongy gums appear the same as in sea scurvy.

Treatment.—The cause of scurvy very clearly indicates the course that should be adopted in the treatment. In the first place, the patient should be placed in an airy and comfortably warm apartment. This being done, the entire surface ought to be well washed off with a wash made by boiling an ounce of the best capsicum in a pint of good vinegar. In the meantime, the following preparation, which is an excellent stimulating and astringent tonic, should be taken:

℞	Capsicum, . .	1 ounce,
	Bayberry, . .	2 ounces,
	Golden-seal, .	2 "
	White sugar, .	16 "
	Vinegar, . .	1 pint,
	Water, . . .	1 "

Pulverize and boil the first three articles in the water and vinegar for ten or fifteen minutes; strain, and add the sugar. The dose is a table spoonful once in two hours.

The bathing with the vinegar and pepper, should be practised once every day. The bowels must be well cleansed and regulated by the use of astringent enemas, as the case may require.

The tincture of myrrh is an excellent article in scurvy, and should be used in connection with the other means. Charcoal has been found especially advantageous in cases in which strong symptoms of putridity prevail. But for this purpose, the pyroligneous acid is better than any other article that can be used. This article should be freely employed throughout the treatment.

When the gums are very spongy and sore, it is a good plan for the patient to hold an infusion in the mouth for a few minutes, three or four times a day, made by scalding some sumac berries in water. For this purpose, the tincture of myrrh, tincture of capsicum, and a tea of the astringent tonic, are also very useful. Oranges and lemons are excellent in this disease, and should be freely eaten.

When hæmorrhages occur, they must be restrained by the use of astringents, as in other cases of the kind.

Regimen.—In no disease is the success of the treatment more dependent on the diet than it is in scurvy. Salted meats and oily substances, must be entirely abandoned; and the patient should make up his meals, as much as possible, of vegetables; or, if meat *is* used, it must be fresh and lean. Vegetables of the cruciferous tribe, as mustard, cresses, radishes, horse-radish, cabbages and turnips, used as food and medicine, seem particularly indicated in this disease. The scurvy-grass has always held a high character for its virtues in the cure of the scurvy.

Potatoes, tomatoes, ripe fruits, &c., are all good, and may be used as food, in proper quantities.

SMALL-POX.

(*Variola.*)

"SMALL-POX, like the measles, is an eruptive fever, propagated by contagion, running a definite course, and, as a general rule,—to which, indeed, the exceptions are extremely rare,—affecting persons but once in the course of life. Its origin is lost in antiquity, and the common opinion is, that in these days, it never arises except by contagion; yet there is reason to believe, that under an exceedingly unfrequent catenation of causes, it may be engendered. It must have originated in the first instance, from common causes, and it would be very strange if the circumstances that gave rise to it then can never now recur."

The disease is divided into two distinct varieties, viz: the *distinct* and *confluent*. In the former, distinct, elevated, distended, and circular pustules are scattered over the surface of the body; and in the latter, the pustules are exceedingly numerous, depressed, irregularly circumscribed, and confluent or joined. But as there exists no essential difference between these varieties, the division is altogether arbitrary. We find that in the same case, on some parts, the pustules are distinct, while on others, perhaps the face or breast, they are quite confluent.

Symptoms.—In from seven to twenty days after the exposure, the patient experiences a sense of languor, weariness, aching pains in the back and lower extremities, slight creeping chills, with flushes of heat, and pain in the forehead, when more or less nausea and vomiting, thirst, tenderness of the stomach, and soreness of the fauces rapidly supervene. The eruption now makes its appearance, first on the face, neck, and breast, then, on the following day, it is seen on the other parts of the body. On the *first* and *second* days of the eruption, being about the *fourth* or *fifth* of the fever, the inflamed points are papular, small, hard, globular, red, painful, separate and distinct from each other, the interstices being of the natural color and appearance. On the *third*, *fourth*, and *fifth* days, they become vesicular, containing a little yellowish fluid, and the interstices become red.

"During the *sixth* and *seventh* days the variola assumes a very peculiar character; it consists of concentric rings, of which the exterior and interior are opaque and pustular; the intermediate one vesicular, and still transparent; it may therefore be denominated *vesicular-pustular*. It is further distinguished by a *central indentation*, and a *surrounding areola of rose-colored inflammation*, which frequently coalesces with those of adjacent pustules, when the eruption is numerous."

About the *eighth* day, the eruption is perfectly pustular, and the central indentation remains. On the *ninth* and *tenth*, the pustules become orbicular, and are filled; and finally, on the *eleventh*, *twelfth*, and *thirteenth*, the pustules break or burst, and scabs are formed. This description applies to the *distinct* variety; the *confluent* is more severe, and the appearance of the pustules is different, according to their number; when very numerous, they give a uniform appearance of redness to the surface between the heads of the pustules.

The fever generally runs pretty high as the eruption is developed, and in the *confluent* variety, there is sometimes much delirium, or coma.

The febrile symptoms, in the latter variety, not unfrequently assume a typhoid character, and a horrible putrefaction may follow.

The sequelæ of small-pox are various, and sometimes very distressing. Chronic cutaneous affections, protracted ulcers, necrosis; inflammations of the eyes, mouth, throat, ears, head, and lungs; dropsies, epilepsy, mania, paralysis, and many other distressing evils, sometimes result from small-pox.

The diagnosis of small-pox, after the eruption appears, is not difficult; and before this, it matters not, as the treatment does not vary from that of the same symptoms in other affections.

When the fever is mild, and the strength of the patient keeps up, and if, moreover, the color of the eruption keeps of a bright red, there is not much danger. But if the fever runs very high, and there is much delirium the danger is considerable. When there is a disposi tion of a typhus character, and the pustules turn dark or black, and the strength fails suddenly, the case is almost certain to terminate in death.

Prevention.—Vaccination seems to be an effectual prophylactic against the small-pox, provided that the vaccine matter be genuine, and produces its constitutional impression on the subject. Vaccination, although known before, was introduced to popular favor, by Dr. Jenner, and he, like the authors of other valuable discoveries, met with the usual opposition and persecution attending all innovations on old and established doctrines and practice.

Vaccina, or cow-pox, as it is called, seems to be attended with the various characteristics of small-pox, only that it is incomparably more mild. The number of pustules is not generally any greater than that of the insertions of the matter, although rare instances have occurred, in which a number, or even a considerable crop has been produced. The vaccine matter, as the name (*cow-pox*) indicates, is derived from the cow. The virus of small-pox is inserted into the udder of this animal, and after the pustules have filled and dried, the scab is preserved for vaccinating purposes.

VARIOLOIDES — MODIFIED SMALL-POX.—"Soon after the general introduction of vaccination, exanthematous affections closely resembling small-pox, were occasionally observed in individuals who had previously undergone the vaccine disease in a regular and satisfactory manner. These *varioloid* affections became more and more common; and within the last fifteen years, they have appeared in various countries, in frequent and extensive epidemics. In the early periods of vaccination, these eruptions were generally regarded as *chicken-pox;* but subsequent inquiries lead to the opinion with many, that they are the product of a *peculiar* contagion, acting on systems, but partially protected against small-pox by previous vaccination; and this appears now to be the general opinion.

"From the earliest times of small-pox, of which we have any records, this disease has been noticed under various modifications, as remarkable and apparently as distinct as the form we now call varioloid. We find various irregular forms of the disease described by the early writers under the names of the vesicular, pustular, and spurious small-pox; swine-pox, sheep-pox, stone-pox, horn-pox, &c., all of which were regarded as having but one origin, namely, variolous contagion. After small-pox inoculation was introduced, spurious variola was by no means uncommon; and it has always been observed that genuine and spurious small-pox have in the same epidemics come in and gone out together, in the same manner as they have been uniformly observed to do since vaccination has been introduced.

"It appears, therefore, that various circumstances, either of a constitutional or accidental character, may modify small-pox in a variety of ways; and as such modifications were abundantly observed before vaccination was practised, we need not be surprised that they should be so frequent now, when a new and very extensive modifying cause exists in the influence of the vaccine disease. That the present varioloid disease is in fact nothing but a modified form of small-pox, may be regarded as established by an abundance of direct and conclusive evidence."—(*Eberle.*)

The disease has many of the symptoms common to the genuine small-pox, but they are invariably more mild. Varioloides usually occurs but once during life.

The following particulars may be regarded as among its most prominent characteristics:

1. The eruption appears in clusters, occurring usually from the second to the fifth day.

2. Unlike the genuine small-pox, the eruption seldom or never enters into complete suppuration.

3. Excepting in very violent cases, the eruption is seldom attended with much fever, and the desiccation or scabbing, invariably occurs much earlier than in real small-pox, and instead of inclining to leave pits or depressions, the scabs leave rather an elevated disk or tubercle of a red appearance.

Treatment.—On the proper treatment of small-pox, the profession has for many years been much divided. The great question has always been on the comparative merits of the *stimulating* and the *anti-phlogistic* plan.

But it is unnecessary here to give a detail of the various arguments that have been adduced on either side. It is sufficient to know that we may expect to be successful in our remedial applications, only when we operate in concert with the *vital powers*, for when these give way, the "*chance is over*," and all medicine is useless. To sustain and promote vitality, then, is the only rational plan of treatment in any case.

When the fever runs high and the skin is dry and husky, (a condition unfavorable to the natural development of the eruption,) the body should be sponged with cold water, while the other usual means applied in fevers are instituted. Lobelia, thoroughwort, saffron, Seneca snakeroot, and black cohosh, are all valuable here. Should it be needed, the lobelia may be pushed to the extent of emesis. It is always comfortable in fevers, to have the air rather cool and the skin moist, and this seems especially favorable in small-pox. The patient's room should not only be kept cool, but well ventilated, and his surface should be daily sponged with tepid or cool alkaline washes, or lime-water. The skin should be kept relaxed, and the determining powers to the surface.

In confluent small-pox, when the patient inclines to a typhus condition, stimulants and tonics must be freely used, such as capsicum, ginger, compound tincture of myrrh, brandy, wine, columba, gentian, and poplar bark.

About the time that the pustules are filling, the circulation should be well sustained with light nourishing food and stimulating medicine, thus to prevent the *pitting* or *pock-mark;* and with a view to this, the patient should be well guarded against picking and scratching the pustules, which all have a disposition to do, owing to the intolerable itching that attends the drying up of the pustules. If the face be oiled, or covered with oiled silk so as to shield it from the air, it will serve to prevent the pitting.

The black cohosh (*botrophis racemosa*) has of late proved itself of great utility in small-pox, and should be constantly used throughout the treatment. Indeed, it is thought by some that this article is a complete preventive to this disease.

SPRAIN.

(*Subluxatio.*)

SPRAINS result from accidents, and usually occur about the joints, especially at the ankles and wrists. They are attended with considerable pain, swelling, redness, and sometimes a yellow or dark green color of the skin. The ligaments of the joints are sometimes considerably injured; and when this is the case the parts are generally slow to recover.

Treatment.—Some physicians recommend the application of cold water, by pouring it from a considerable hight on the injured part. If this course is taken, the skin, after the application, should be dried and well rubbed with a towel, and then a coat of the stimulating liniment, or the bathing drops, or opodeldoc ought to be freely applied.

If the part is very painful, it may be steamed over a pot of bitter herbs, applying or laying the hot herbs over the sprain, while the hot water is regularly poured over them.

An application of bruised poppy, or jimson leaves, will be found very excellent to assuage the pain.

The fomentations and liniments should be applied frequently, or as the case may require.

Sometimes a relaxing poultice made of lobelia, slippery elm, and capsicum will be found very advantageous.

ST. ANTHONY'S FIRE.

(*Erysipelas*)

ERYSIPELAS is a febrile affection, attended with diffusive cutaneous inflammation on some part of the body, characterized by redness, burning, heat, swelling, and vesication.

Symptoms.—Previously to the development of the local symptoms, there is almost universally more or less morbid movement in the general system. The digestive organs are usually impaired; there is loss of appetite, a furred tongue, sometimes nausea and headache, and often a considerable oppression in the region of the stomach. After these symptoms have appeared for an indefinite length of time, the eruption will make its appearance, sometimes preceded with a paroxysm of fever.

The inflammatory eruption comes out in the form of an irregular stain or diffused red blotch, which has a disposition to enlarge rapidly. Some vesicles generally appear about the third day, which are filled with a yellowish serum. The eruption, however, sometimes assumes a latent form, and seems to become chronic. There is usually more or less swelling of the parts; and this often becomes considerable. When the disease attacks the face, the eyes are often closed by the swelling, and the entire countenance becomes so disfigured by the tumefaction, that it cannot be recognized.

Although the dermoid texture (the skin) is most subject to erysipelas, yet the inflammation is known sometimes to penetrate deeply into the body, or even to affect the surfaces of internal organs.

Erysipelas assumes various degrees of violence, and presents different characteristics, which are, however, all owing to the idiosyncrasy of the patient — the condition of the atmosphere — the state of the system at the time of the attack, or the character of the treatment.

These varieties have been severally called the *erratic*, the *suppurative*, the *œdomatous*, and the *gangrenous* erysipelas, according to the character and termination of the disease.

Among the various circumstances and causes that tend to produce erysipelatous inflammations, the following might be named: 1, sudden transition from warm to cold atmosphere; 2, local irritants; 3, general depraved and corrupt condition of the humors; 4, maltreatment of other diseases; 5, constitutional predisposition.

It is not very difficult to distinguish this, from other forms of disease. The local symptoms are generally the most unequivocal diagnostics. The redness and swelling of erysipelas, is generally attended with an intolerable itching and burning. The eruption differs from that of scarlet fever, in its more marked phlegmonous character, and from that of measles, by its diffusion, and the abruptness of its margins.

When the disease is of the erratic or wandering character, it is comparatively mild and without danger. When the redness disappears, and is followed by the natural color of the skin, and the fever subsides, the disease may be expected to terminate by resolution; and even when it terminates by suppuration, it is not considered dangerous, although it is very distressing; but when the skin in the œdematic or any other variety, turns purple or dark, and the swelling becomes soft, gangrene is apt to supervene, and carry off the unfortunate sufferer.

Treatment.—The indications in the treatment of erysipelatous inflammation, are about the same as in other violent inflammations; prompt relaxation, evacuations, and tonics are required.

In former years the author was in the practice, in severe cases, to put the system under the influence of nauseants, and applying a liniment made of lime-water and linseed oil to the affected parts. This latter sometimes was alternated with a cataplasm of lobelia, slippery elm, and the common diaphoretic powders, in equal parts,—adding sufficient rye or wheaten flour to render it adhesive. When putrescent symptoms appeared, an application was made, composed of the dregs remaining in the preparation of the compound tincture of myrrh; Peruvian bark, and bayberry, in equal portions,—adding sufficient water and gum arabic to form a cataplasm.

These means were generally quite successful. But in milder cases the first named liniment was often alone sufficient.

The application of fresh blood or flesh to the affected parts was formerly considered the best external remedy, and though this is somewhat inconvenient, it is certainly an effectual means.

A plan of treatment, at this moment suggests itself to the mind of the author, which is very excellent in other cases of inflammation, and why not in this? It is to apply the acetate of ammonia freely to the parts affected, and then enveloping them in cloths kept wet with cold water.

Emetics of lobelia are important in all bad cases, and should never be neglected. They tend to obviate the general inflammatory diathesis, by equalizing the circulation and regulating the nervous action.

Cathartics are proper, but should never be of an irritating character, lest they might occasion metastasis of the disease, and thus endanger the bowels.

Diaphoretics of the relaxant and non-stimulant kind, as thoroughwort, acetate of ammonia, &c., are serviceable when there is much fever.

Tonics are important in low cases, especially when there is danger of gangrene.

ST. VITUS' DANCE.

(*Chorea.*)

This singular disease consists of an affection of the nerves, giving rise to irregular and uncontrollable jerking or twitching of the muscles of parts, or even, in rare cases, the entire body. "It has been called St. Vitus' dance, because some devotees of St. Vitus exercised themselves so long in dancing, that their intellects were disordered, and could only be restored by dancing again at the anniversary of St. Vitus." The disease most commonly affects only one side at a time, particularly the arm and leg.

When chorea affects the muscles of the face, it gives rise to quite a variety of the most strange and fantastical grimaces and contortions.

When any motion is attempted to be made, various fibres of other muscles act which ought not; and thus an effect contrary to that intended, is produced. The disease is chiefly incident to children and young persons of both sexes, seldom occurring, for the first time, after the age of puberty.

The intellectual faculties are seldom affected in this disease; but it has been stated, that when the affection is very severe and of long standing, more or less injury of the mind has been experienced.

Chorea may arise in debilitated habits, from any cause that produces protracted nervous irritation. The irritation occasioned by the presence of worms, and that attending teething, &c., may be named among the exciting causes of the disease.

Treatment. — The cure of chorea may generally be effected by taking, in connection with a strong tea of the nervine tonic, three or four times a day, the following preparation:

℞ Black Cohosh,	.	2 ounces,
Skull-cap,	. .	1 ounce,
Assafœtida,	. .	½ "

Pulverize and digest in a pint of alcohol for six days, and pour off the tincture carefully. The dose is a tea spoonful once in three hours.

The good effects of the above are made more sure by taking some pills, made by rolling equal parts of lobelia and skunk cabbage root, in fine powder, with the extract of blue cohosh or of lady's slipper. The dose of these is from one to three, two or three times a day.

Bathing. — The shower bath is an excellent auxiliary to the other means in this disease. The patient should take a showering at least once a week, but would do much better to take one every day. After the bath, the skin must always be well dried and freely rubbed with a coarse towel.

Cathartics. — Cathartics have been found of considerable utility in this disease; but the articles used of this class must be mild and unirritating. Usually, however, it is only necessary to keep the bowels open by the use of laxatives.

SUSPENDED ANIMATION.

(*Asphyxia.*)

It is known that when oxygen, the supporter of physiological as well as common combustion,* is excluded from the lungs, that all the vital functions will cease. This condition of the body is now called asphyxia. Formerly, the term was restricted to diseases of the heart; or, rather, it was used to designate those affections that were characterized by suppression or want of pulse.

Asphyxia may be caused by anything that will obstruct the passage of atmospheric air to the lungs. The common causes of the difficulty are *drowning*, *strangling* or *hanging*, *irrespirable gases*, &c. These will receive a short notice separately.

Drowning.—When a person is submerged, or falls into water, the instinctive motions of respiration are continued; but as the irrespirable fluid is drawn into the windpipe, the irritation produced by its presence gives rise to spasm in the muscles of the glottis, and thus the passage is instantly closed up; and in this way we may account for the fact that water is never found in the lungs of persons recently drowned. It is, however, generally the case that a frothy mucus is found in the air cells or bronchial tubes, which, by most pathologists, is supposed to be dependent on the presence of water. It is not improbable, that although the trachea is very sensitive to the irritation of water or any other foreign substance; yet during the first few inspirations more or less may be drawn even into the lungs, and then, by the coughing excited, the most of it be forcibly expelled, while the spasmodic contraction at the glottis, which by this time has become permanent, prevents the further admission of the fluid. It is remarkable, that it is also seldom the case that water is found in the *stomachs* of those recently drowned.

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* The term "*physiological combustion*" is here used to express that phenomenon that is evinced in the union of oxygen with the elements of the blood.

It is very certain, that unless the submersion is attended with violence, as contusion, &c., sufficient to occasion death more quickly than it would take place in consequence simply of submersion, that the death is always occasioned by the absence of the atmospheric air or oxygen from the lungs.

STRANGLING OR HANGING.—It has been supposed that in cases of asphyxia from this cause, the mischief is occasioned by the obstruction produced to the circulation in the large vessels of the neck,—that from engorgement in the venous system, a fullness or hyperæmia in the brain is occasioned, which, giving rise to apoplexy, in this way brings on death. But this is a mistaken idea; for, although the venous circulation through the jugulars and other superficial vessels in the neck, is totally obstructed, and notwithstanding a considerable hyperæmia of the vessels of the brain is produced, yet it is certain, from the results of observation and experiment, that this is not generally the cause of the death, in strangulation. In this, as in other cases of asphyxia, this event follows as the common result of the exclusion of the atmospheric air or oxygen from the lungs.

ASPHYXIA BY IRRESPIRABLE GASES.—These gases produce death negatively by their want of support to respiration, or by their occasioning a spasmodic closure of the glottis, and thus preventing the entrance of the atmosphere or oxygen, the only supporter of respiration. The gases that are especially mischievous in this respect, are not very many; among the most prominent, are carbonic acid gas, ammoniacal gas, muriatic acid gas, deutoxide of nitrogen, and chlorine.

Among the less frequent causes of asphyxia, are mechanical hindrance to the expansion of the chest, as in tight lacing, &c., smothering, tumors in the chest, and the congenital causes.

General Symptoms, &c.—The symptoms attending asphyxia, although about the same, whatever be the character of the mechanical cause, must nevertheless be expected to vary according as the supply of oxygen is diminished or totally withheld. But the following description by Dunglison, will hold good in the generality of cases:

"When the access of oxygen is in a manner prevented, a few seconds elapse before any uneasiness is experienced; but after this, a marked feeling of distress indicates the necessity for satisfying one of the most imperious wants — that of respiring — the *besoin de respirer*. This feeling soon becomes insupportable; the animal gasps and yawns repeatedly, and makes use of every effort to obtain a supply of the indispensable fluid. The whole body is agitated. The limbs quiver, and are convulsed, or thrown into tetanic spasms. Almost instantaneously, especially if respiration has been slightly practicable, and the supervention of asphyxia therefore gradual, the feeling of distress is attended by vertigo and stupor; the face becomes livid, especially the lips and the orifices of the mucous membranes; and, at times, the whole surface becomes of the same hue. The sensorial functions are suspended in a few moments, and almost simultaneously the muscles lose their power of contraction, so that the individual falls. In this state of apparent death, an obscure circulation alone exists in the great vessels, while the functions of the capillary system continue. The præcordial region presents, at times, a dullness on percussion, which extends as far as two inches to the right of the sternum, and three inches above the space usually occupied by the right heart. This dullness is owing to the engorgement of the right cavities.—(*Piorry.*) Soon the circulation ceases, first of all in the larger vessels, and afterward in the capillaries; and, with this cessation, the functions of secretion, nutrition and calorification are arrested The asphyxia has now become positive death.

"Examination of the body after death, exhibits general lividity of the surface, and the face more especially. The parenchyma of the different organs is filled with fluid, especially that of the liver—which is sometimes quite purple—of the spleen, kidneys, and lungs. The whole capillary system, indeed, is surcharged with blood of a dark color, which is described by some writers as always fluid;—(*Adelon;*) but to this there are many exceptions.—(*Berard.*) The blood appears to be wholly collected in the pulmonary artery, the right side of the heart, and the venous system generally, while the pulmonary veins, the left cavities of the heart, and the arteries, are empty, or contain but a small quantity of fluid. The appearances, however, differ somewhat, according as the respiration is at once obstructed, or has taken place, although imperfectly, for a time. In the former case, death ensues more promptly, and there is less suffering; and, on examination, the cutaneous capillaries and the various organs are less charged with blood, and the fluid is less exclusively collected in the venous system."

The cause of the livid or dark appearance of the countenance and other parts of the body, and the distortion of the features, will not always insure these phenomena for any considerable time after death. For it is often, if not generally the case, that the countenance assumes its natural appearance; and it is even said, that not unfrequently there is quite a placidity of expression—a "*rapture of repose*" giving a singular contrast with the previous appearance. Nevertheless, in some cases, especially when there is mechanical obstruction in the superficial vessels, as in hanging, that all the horrible appearances attending asphyxia are continued long after death. This condition of the dead body is graphically described in Shakspeare's lines on the frightful physiognomy of Duke Humphrey:

"But see! his face is black and full of blood;
His eye-balls further out than when he lived,
Staring full ghastly like a strangled man;
His hair uprear'd; his nostrils stretch'd with struggling;
His hands abroad displayed, as one that grasp'd
And tugg'd for life, and was by strength subdued."

Treatment.—In the treatment of cases of suspended animation, the great object should be to bring about that condition of the body most favorable to the performance of the physiological or vital functions, as respiration, circulation, calorification, &c. The first thing, therefore, that should be done, is to remove the subject from the influence of the cause or causes of the asphyxia. This being done, the body, if wet, should be immediately dried with the use of a towel or dry cloth, and then a course of the most lively friction must be instituted with the use of the rubefacient oil, bathing drops, tincture of capsicum; or, if none of these are convenient, the dry hand should be used. In the mean time, efforts must be made to get down some permanent diffusive stimulant, as the anti-spasmodic tincture, tincture of capsicum or myrrh, &c. Enemas, as warm as could be borne by a healthy subject, composed of the same permanent and diffusive stimulants, must also be frequently administered.

By this time the preparations for a vapor bath may have been instituted, so that the patient may now be surrounded by a vapor of moderate heat. The precaution must, however, be observed, not to deprive the face of fresh and circulating air. The vapor should, for a few moments, be kept at a temperature of only about sixty or seventy degrees, or about that of the surface of a healthy man; and then it may be gradually raised as the circumstances may seem to require.

Artificial inflation of the lungs, has ever been regarded as a very important means of resuscitation. The inflation is generally made by forcing the air into the mouth through a tube, or by means of a common bellows, while the nostrils are held close, to prevent the return of the air through them. The air must, however, be forced in very moderately, and time should be given for it to pass out alternately with the inflations. The process may also be favored by placing the hand on the breast or abdomen, and gently pressing alternately with the inspirations.

Galvanism has of late been found very useful in those cases, and if a battery is at hand, it is advisable to use the means.

TIC DOULOUREUX.

(*Neuralgia.*)

This is one of the most painful affections that are incident to man. It essentially consists of an intermittent pain that is seated in a nerve, and shoots along its course and ramifications.

The pain generally occurs suddenly; but sometimes a slight sensation of itching or of heat, creeping or numbness is felt in the part, which gradually becomes more and more intense, until the disease is fully established. Then again the pain is preceded by a feeling of coldness and numbness. When the disease has fully set in, the pain is usually extremely acute and lancinating, and the velocity with which it traverses the nerves, has been compared to an electric shock.

The face is more commonly the seat of neuralgia than any other part of the body.

" When the pain is at its hight, it seems as if burning needles were thrust into the affected parts. After a time, the agony diminishes, and is alternately replaced by a sense of numbness, which remains until the pain recurs. Exacerbations and remissions of pain take place at intervals, until ultimately the pain becomes endurable, which it scarcely was at the hight of the paroxysm."

It is obvious, that a disease so *painful* could not long exist without affecting the general system. Sleep is driven away; general restlessness sets in; digestion is poorly performed; and if the patient is not relieved, the system will become worn down, and in the worst cases death not unfrequently occurs in the course of a week or two.

Treatment.—The pain may generally be removed by the use of the rubefacient oil. This preparation must be applied to the affected parts with thorough and continued friction. In rubbing it on, the ends of the fingers should be drawn along the course of the pain with considerable pressure. In the meantime, lobelia should be taken in nauseating doses. It is the best plan to form some of the pulverized seed into pills with the lady's slipper extract, and then to give them once in three hours in nauseating doses.

The bathing drops will sometimes answer instead of the rubefacient oil; and it happens occasionally, that the pain may be readily relieved by the use of the rubefacient solution.

Hot fomentations of bitter and relaxing herbs, have also been found useful.

The vapor bath should be applied, together with emetic doses of lobelia, if the pain does not yield to the other means recommended; and these should be repeated daily, in extreme cases, until the disease will yield.

The nervine tonic should be used during the entire treatment, whatever may be the other means employed.

TOOTHACHE.

(*Odontalgia.*)

This very troublesome complaint is very common, and needs no detail of symptoms.

The pain commonly called toothache, is not always caused by caries of the teeth. Inflammation of the alvaolo-dental membrane often gives rise to extreme pain, when the teeth may be sound. Ulcerations may occur in the sockets of the teeth from inflammations of this membrane, and the pus be discharged between the gums and the teeth; and sometimes the matter, not finding vent, will remain and give rise to a carious condition of the bones, and thus keep up a fistulous ulcer. The soft parts within the jaw bones may also become inflamed, and cause what is commonly called the "*jawache.*" This latter generally passes off by resolution. However, in the majority of instances, the pain arises from caries of the teeth. The crown of the tooth is most commonly affected, but it sometimes happens that its fangs or roots commence to decay first. In this case the symptoms do not differ much from those that characterize inflammation of the membranes, only that the difficulty lasts longer, or assumes a more chronic form. When the crown or top of the tooth is affected with caries, it seems that the disease commences on the outer edge of the bony part, immediately under the enamel. Carious parts are generally discovered by the painful sensation caused by the contact of cold or hot drinks, by the touch of sugar or other saccharine matter, before it can readily be seen on examination. The rotting of the tooth generally commences in a small point, and continues thence, until the whole crown is decayed away. The bony part goes first, and afterwards the enamel or remaining shell is broken down either by an effort at extraction, or by chewing hard substances.

Treatment.—In cases of inflammation of the membranes, which may be known by the absence of caries, by the pain seeming to affect a number of teeth at the same time, by the affected teeth being loose and longer than the rest, by the swelling of the cheeks, and the ulceration of the gums, the external treatment should consist of a course nearly the same as that recommended for glossitis, only it may be milder in the commencement. The teeth should not be extracted in cases of inflammation of the membranes, unless it becomes necessary to do it when ulceration takes place, in order to give vent to the pus.

In cases of toothache from caries, the pain may be relieved by the introduction of a little oil of cloves, cinnamon, summer savory, or some creosote, which may be done by means of a little bit of cotton or lint. When the pain is relieved, the tooth should be cleaned out, and plugged up with a metallic substance, such as silver, or gold foil. But when the tooth is so far decayed as not to be of much service, it should be extracted.

The rubefacient oil or bathing drops, applied with considerable friction, will often give relief in toothache as well as jawache. Some advise destroying the nerve; and for this purpose, the introduction of a hot wire or caustics, such as the carbonate of potash, &c., if well done, will generally be successful.

ULCERS.

(*Ulcera.*)

ULCERS are open, fœtid, chronic sores, which have the following description by Hooper:—A purulent solution of continuity of the soft parts of the animal body, arising from a variety of causes, as all those that produce inflammation, from wounds, specific irritation of the absorbents, from scurvy, cancer, the venereal or scrofulous virus, &c. The proximate or immediate cause is an increased action of the absorbents, and a specific action of the arteries, by which a fluid is separated from the blood upon the ulcerated surface They are variously denominated; the following is the most frequent division:

1. The *simple ulcer*, which takes place generally from a superficial wound.
2. The *sinuous*, that runs under the integuments, and the orifice of which is narrow, but not callous.
3. The *fistulous ulcer* or *fistula*, a deep ulcer with a narrow and callous orifice.
4. The *fungous ulcer*, the surface of which is covered with fungous flesh.
5. The *gangrenous*, which is livid, fœtid, and gangrenous.
6. The *scorbutic*, which depends on a scorbutic acrimony.
7. The *venereal*, arising from the venereal disease.
8. The *cancerous ulcer*, or open cancer.
9. The *carious ulcer*, depending on a carious bone.
10. The *inveterate ulcer*, which is of long continuance, and resists the ordinary applications.
11. The *scrofulous ulcer*, known by its having risen from indolent tumors, its discharging a viscid, glaring matter, and its indolent nature.

The following four great distinctions between wounds and ulcers, are made by Professor Richerand: — 1. A wound arises from the action of an extraneous body; the cause of an ulcer is inherent in the economy. 2. A wound is always idiopathic; an ulcer is always symptomatic. 3. A wound has essentially a tendency to heal, because the action of its cause has been momentary; an ulcer, on the contrary, has a tendency to enlarge, because its cause persists. 4. The treatment of a wound is purely surgical; that of an ulcer is medical as well.

Treatment. — As ulcers, in nearly every instance, are a result of an unhealthy condition of the general system, it is a very good plan, as a common rule, to commence their treatment with such a remedial course as is calculated to obviate the various primary and incidental causes that may obtain in the case.

To regulate the secretions, equal parts of the extract of yellow parilla and mandrake, formed into pills, may be given in doses of one pill three times a day. For this purpose, the alterative syrup is also very good.

Laxative bitters are very useful, as a general remedy in the treatment of ulcers; they should be employed throughout the treatment.

Local Treatment. — One of the most important things in the local treatment of ulcers, is to keep the sore clean. It must be frequently washed out with soapsuds and astringent infusions made of the astringent tonic, bayberry, sumac bark, white pond-lily, &c. After the washings, the sore should be wetted occasionally with some pyroligneous acid; or if this is not at hand, some tincture of myrrh, lobelia, or capsicum, may be dropped into it at the dressings.

Poultices. — Great benefit is often found in the use of poultices. The ingredients of which these should be made, must be selected according to the condition of the ulcer, whether they should be astringent, relaxant, stimulating or emollient. Among the astringent articles, almost any of the simples will be found to answer, but the astringent tonic, bayberry, cranesbill, sumac, and pond-lily root are generally preferred. Among the relaxants, the best are lobelia and thoroughwort. Of the stimulants, ginger and capsicum, made up with meal, or slippery elm bark, are generally preferred. Slippery elm, comfrey, flaxseed, and mallows, are the best emollients.

Salves. — As soon as the ulcer issues healthy pus, or that which is of a thick, yellowish, cream-like consistence, the sore will be ready for the healing process. To promote this, salves are of great benefit. Either of the salves recommended among the compounds may be employed. It is sometimes best to change them, first using one, and then another.

At the dressings, the sore must always be washed out, first with soapsuds, and then with some astringent wash.

If, at any time after the use of the salves is commenced, the ulcer should become inflamed and painful, the emollient and relaxant poultices should be used.

The plaster recommended for the treatment of open cancers, is an invaluable application for old indolent and obstinate ulcers.

In *fistulous* and *sinuous* ulcers, it is necessary to inject the articles used into the opening of the ulcer, by means of a syringe made for the purpose, that can be got at drug stores. In *gangrenous* ulcers, antisceptic poultices, made as directed for mortification, must be used.

When the ulcer is very indolent and slow to heal, it is sometimes very good to sprinkle some capsicum or its oil, or the oil of lobelia into it. When there is fungous flesh in it, some fine blood-root, mandrake root, burnt alum, or what is perhaps better than anything else, a little carbonate of potash may be sprinkled on the fungous parts; and then a poultice should be laid over the whole.

VENEREAL DISEASE.

(*Syphilis.*)

This is a very contagious disease, propagated by impure sexual intercourse, and prevails considerably among both sexes in some of our large cities, and is not unfrequent in most country places. It is supposed by some to be of ancient origin, yet it did not make its appearance in Europe until 1494 or 1495.

The disease consists essentially of a specific poison, which when contracted, gives rise to symptoms that mark two distinct stages of the affection, the *primary* and the *constitutional*. The primary or local symptoms are not generally called syphilis, but receive the name of *gonorrhœa venerea* or *clap*, *chancre*, and *bubo*, according to its different seat or appearance.

GONORRHŒA. — Gonorrhœa may take place without the presence of the venereal poison; but when it follows as an effect of this, it generally sets in, in from a few days to one or two weeks after the exposure, with an uneasiness about the parts of generation, such as an itching sensation in the glans of the penis, and a soreness and tingling feeling along the whole course of the urethra. Soon after this, a whitish matter will make its appearance, and there will be a degree of pungency or burning in passing the urine. There is considerable pain in the glans, which will extend with greater or less activity, upward along the course of the urethra; the glans becomes red and swollen, and very tender to the touch. The patient is usually much harassed with painful erections, particularly when in bed, and when the urine is voided. In many cases, the inflammatory action extends from the mucous membrane to the corpus or body of the penis, giving rise to much tenderness and hardness in this part. Attending this, there is usually a very painful symptom called *chordee*, which consists in strong and protracted erections, whilst from the hard and unyielding condition of the corpus spongiosum, the penis is thrown into a curved form, with the head turned down and the body bent upward. It is not unusual for small quantities of blood to be discharged with the gonorrhœal flux. Both of the sexes are liable to this affection. In females, however, the symptoms differ in most particulars; but the discharge is of the same character, and is often difficult to be distinguished from that of common leucorrhœa.

CHANCRES.—These make their appearance at an uncertain period after the venereal poison is contracted—first by one or more small pimples, excoriations or ulcers, that are situated on some part of the genital organs, preceded usually by an itching in the part. These sores enlarge and assume all the characteristics of the most obstinate ulcers, with thick hardened borders. Nor is the induration confined to the margins, for the whole excavated surface of the ulcer is hard and unyielding. The true venereal chancre is always of an indolent character, or slow in its progress.

BUBO.—The glands situated at the junctions of the limbs, possess a singular power of absorbing poisons carried into the circulation; and thus from this striking arrangement of things, poisons starting in the extremities, are often prevented from passing into the trunk among the viscera. When these glands have absorbed much poison, they swell considerably, and not unfrequently suppurate and break.

The glands in the groin, are those usually affected with the venereal poison; but it is very seldom the case, that from this cause, more than one in a side becomes affected at a time. When a gland thus swells, it is called *bubo*.

The bubo may continue for a time in an inflammatory condition, and then pass off by resolution, or it may suppurate, and then assume all the usual characteristics of an obstinate ulcer.

SYPHILIS.—The constitutional effects of the venereal poison, are still more horrible than the primary symptoms. The following description is given by Hooper:

"When venereal matter gets into the system, some symptoms of it may often be observed in the course of six or eight weeks, or probably sooner; but in some cases, it will continue in the circulating mass of fluids for many months before any visible signs of its effects are produced. The system being completely contaminated, it then occasions many local effects in different parts of the body, and shows itself under a variety of forms, many of which put on the appearance of a distinct disease. We may presume that this appearance depends wholly on the difference of constitution, the different kind of parts affected, and the different state these parts were in at the time the matter or poison was applied.

"The first symptoms usually show themselves on the skin, and in the mouth or throat. When on the skin, reddish and brownish spots appear here and there on the surface, and eruptions of a copper color are dispersed over different parts of the body, on the top of which there soon forms a thick scurf or scale. This scurf falls off after a short time, and is succeeded by another, and the same happening several times, and at length casting off deep scabs, an ulcer is formed which discharges an acrid fœtid matter. When the matter is secreted in the glands of the throat and mouth, the tongue will often be affected so as to occasion a thickness of speech, and the tonsils, palate, and uvula will become ulcerated so as to produce a soreness and difficulty of swallowing, and likewise a hoarseness in the voice. In the venereal ulcer of the tonsil, a portion of it seems as if it was dug out; it is, moreover, very foul, and has a thick, white matter adhering to it, which cannot be washed off. By these characteristic marks it may, in general, readily be distinguished from any other species of ulceration in these parts.

"If the disease affects the eyes, obstinate inflammation, and sometimes ulceration, will also attack these organs. The matter sometimes falls on deep-seated parts, such as the tendons, ligaments, and periosteum, and occasions hard, painful swellings to arise, known by the name of *nodes*.

"When the disease is suffered to take its own course, and not counteracted by proper remedies, the patient will in the course of time, be afflicted with severe pains, but more particularly in the night time; his countenance will be sallow, his hair will fall off, he will lose his appetite, strength, and flesh; his rest will be much disturbed by night, and a small fever of the hectic kind will arise. The ulcers in the mouth and throat being likewise suffered to spread, and to occasion a caries of the bones of the palate, an opening will be made from the mouth to the nose; and the cartilages and bones of the nose being at length corroded, this will sink on a level with the face. Some constitutions will bear up for a considerable time against the disease, while others again will soon sink under a general weakness and irritation produced by it. * * *

"The general appearances to be observed on dissection of those who die of lues, are, caries of the bones, but more particularly those of the cranium, often communicating ulceration to the brain itself, together with enlargements and indurations of the lymphatic glands, scirrhus of several of the organs, particularly the liver and lungs, and exostoses of many of the hardest bones."

Cause.—It has already been stated that the venereal disease is produced by a specific poison. This is communicated by those affected with it, to others, by impure sexual intercourse; and thus in large cities where this practice is extensive, the disease spreads very rapidly, as one individual may communicate the poison to an incredible number of others.

In rare instances the disease may also be taken by the exposure of any excoriated, wounded, or otherwise unprotected part of the body to the contact of the poison, as by kissing, lying against a person laboring under the disease, &c.

It is also supposed, and it seems reasonable, that a child may, by sucking at the breast, receive the poison from a nurse that is affected with syphilis; and on the other hand, that a child affected with it may communicate it to the nurse.

It has also been stated, that the disease has been communicated by a wound with a lancet, or knife infected with the poison.

Treatment.—In recent cases, when the first symptoms of gonorrhœa appear, nothing more may be necessary than an active cathartic, composed of equal parts of mandrake and blue flag in powder; and at the same time washing the parts, and injecting them with the following compound:

℞ Tincture of Lobelia, 2 ounces,
Tincture of Myrrh, 1 ounce,
Balsam of Fir, . . 1 "

Shake well in a bottle. A table spoonful of this may be mixed with an equal quantity of the infusion of the astringent tonic, and then used as stated above. The application must be frequently repeated. The solutions of the sulphate of zinc and of acetate of lead have been employed with good success in this case.

When buboes make their appearance, the parts should be poulticed, if this be practicable, with the dregs of myrrh and lobelia, and some fine slippery elm bark. If this cannot be done, a liniment made by mixing together equal parts of the stimulating liniment and stramonium ointment, must be applied to the parts with gentle friction, three times a day. While this is being done, the system must be kept under the influence of the mandrake and blue flag cathartic powder.

When the tumors suppurate and break, they must be treated as is recommended for common ulcers.

Chancres and syphilitic ulcers, must be kept clean by washing them frequently with a solution of carbonate of potash. If situated where poultices may be applied, these should be used: they may be made as follows:

℞	Thoroughwort, . .	Equal parts.
	Narrow dock root, .	
	Mandrake root, . .	
	Bayberry, ...	
	Slippery elm, . . .	

Pulverize and form into a poultice by adding flour, if necessary. This should be laid over the ulcer, and be renewed, or a new one should be applied every morning and evening, washing out the sore at the dressings with a solution of potash, or an astringent tea, as the case may require, until it is ready to heal, when salves may be applied.

When the ulcers are very indolent, it is a good plan to drop into them some tincture of myrrh occasionally. The antispasmodic tincture, and the tincture of lobelia, are also beneficially used in this way.

When the ulcer presents a dark appearance, or exhibits other signs of mortification, a poultice of the dregs of myrrh should be applied, and renewed as often as the case may require. The pyroligneous acid is also very good to prevent mortification in these sores.

Such parts of the treatment recommended for scrofulous and common ulcers, as may be indicated here, should also be used.

In cases of confirmed syphilis, in which the poison produces its constitutional effects, a more thorough course of treatment is required. The vapor and lobelia may be required once, twice, or three times a week, as the urgency of the case may require.

℞	Stillingia, .	12 ounces,
	Podophyllum,	4 "
	Phytolacca, .	4 "
	Iris vers. . .	4 "
	Alcohol, . .	4 pints,
	White sugar,	2 pounds.

Bruise the four first ingredients and macerate in the alcohol for ten days and strain, then add the sugar.

This is one of the *best*, among the safe remedies for syphilis, that can be prepared. It is perhaps equally efficient with mercury, which has been considered a specific for this disease.

It should be taken throughout the treatment, in doses sufficiently large to keep the bowels loose. From a tea spoonful to a table spoonful three times a day, will usually be sufficient. Should this medicine disagree too much with the bowels, it may be alternated by the use of the alterative syrup.

The balsamic diuretics, are important remedies in the treatment of syphilis. Among the best of these, for this use, are the balsam of copaiva, and balsam of fir. The queen of the meadow root, will also be found very useful.

When ulcers in the mouth and elsewhere make their appearance, they must be managed, (in addition to the general treatment,) as nearly as possible, after the plan recommended for ulcers arising from other causes.

The use of tonics is indispensable to the proper treatment of syphilis.

WENS.

Wens are roundish, loose, fleshy tumors, that grow superficially, on various parts of the body. They generally are situated in the cellular tissue, immediately under the skin. They are seldom painful, and hardly ever become troublesome, except from the inconvenience arising from their bulk.

Treatment.—The wen may, generally, be removed by washing it frequently with salt water.

The following preparation will, however, act more promptly in its removal than the simple use of the salt water: Take the yelks of eggs, any quantity, beat them up, add as much pure salt as they will dissolve, and wear this over the wen—changing the application for a fresh one, every twelve hours. The iodine ointment is also a good application for the removal of wens, and will sometimes be effectual after the above preparations fail.

Wens are easily removed by the knife, as their position is very superficial.

WHITE-SWELLING.

(*Hydarthrus.*)

White-swelling is a very inveterate and painful disease, that is usually seated on some of the joints of the body, particularly the hip, knee, ankle, and elbow. The swelling is generally very considerable, sometimes extending the size of the part beyond all proportion. The appearance of the skin, as the name implies, is natural or white, even when the inflammatory symptoms are at the highest.

The disease is usually very painful and distressing,* and the pain is much increased by the motion of the joint. As the affection advances, the limb becomes stiff, and continues in a crooked position. The swelling now becomes very hard; and if the disease is not arrested, suppuration will take place, — the tumor will break, and discharge large quantities of matter, and not unfrequently some pieces of bones. Suppuration sometimes makes its appearance early in the disease; but more usually it does not come on for several months, and occasionally not for a year or two.

Various parts of the joints may be the immediate seat of the disease, as the ligaments or capsules, cartilages, tendons, periosteum, and even the bones. The ligaments sometimes ulcerate away so much as to let the bones slip out of their places, and thus expose them at the surface.

It would hardly be expected that such severe and extensive local disease could long exist without giving rise to more or less constitutional derangement. The general health gradually becomes impaired, the appetite fails, and debility sets in. Considerable emaciation generally supervenes; and finally, if the disease is not arrested, the bowels become disordered, a diarrhœa sets in, and in some severe cases, the patient continues to sink until released by death.

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* It happens occasionally, that white-swelling progresses with very little pain; but this is rarely the case.

Treatment.—White-swelling, in by far the majority of cases, is connected with a strumous condition of the system; and therefore, in order to its successful management, a general treatment, like that recommended for scrofula, must be adopted. The circulating fluids must be kept in a pure and healthy condition; and for this purpose, general deturgents or depuratives, alteratives, baths, laxatives, cathartics, occasional emetics, and any other means calculated to promote healthy secretion, and improve the condition of the general system, must be perseveringly used. Among these, the alterative syrup is the most important, and should be used as a constitutional remedy throughout the entire treatment.

Local Treatment.—The affected part should be fomented every day over a pot of volatile herbs, as pennyroyal, horsemint, marjorum, peppermint, &c. Immediately after this fomentation, if the case has not yet suppurated, some stimulating liniment must be rubbed on the parts, freely. Stimulating and relaxant poultices, are also generally found of considerable advantage. Binding on wilted or bruised leaves of the jimson, and changing it for a fresh application daily, will be beneficial, if the parts are previously well rubbed and bathed with the bathing drops.

An application, made by beating up some yelks of eggs, and adding as much salt as the mass will dissolve, if constantly worn over the swelling, and renewed by a fresh application every morning and evening, will generally prove an excellent means.

If the swelling should not readily yield to the above means, an irritating plaster must be applied, and worn until its specific effects are produced; and after this, relaxant poultices should be applied to keep up a discharge.

When suppuration has taken place, and the sore does not readily heal, but inclines to an ulcerous condition, a solution of the carbonate of potash should be injected with a small syringe, designed for the purpose. The sores must also be washed out, at least once a day, with a strong astringent tea, by means of a sponge or syringe; and after this, some tincture of myrrh may be thrown into it, or, instead of it, pyroligneous acid.

The sore must then be poulticed with slippery elm, thoroughwort, lobelia, or astringent tonic, as the case may require, until it is ready to heal, when the salves should be used.

WHOOPING COUGH.

(*Pertussis.*)

The whooping cough is a very distressing disease, chiefly confined to children, and occurring but once in the same individual. It seems to be propagated by a specific contagion.

The exciting cause of the cough appears to consist of a collection of viscid phlegm that accumulates in the bonchia, trachea, and fauces, and which adheres so firmly as to be expectorated with great difficulty. As soon as this phlegm becomes collected so as to excite irritation, a fit of coughing will ensue, which will seldom cease until the phlegm is removed either by the coughing or by vomiting. The patient will then have relief until the irritation is again produced by a new collection of the phlegm. These paroxysms of coughing, which may occur four or five times a day or oftener, are sometimes extremely severe. The patient not unfrequently becomes strangled and turns black in the face, and in some instances he may fall to the ground in a manner senseless. The coughing is attended with a peculiar kind of whooping, — whence the name of the affection. The disease, when left to run its course, will generally continue from six weeks to several months or longer.

Treatment. — Lobelia seems to be a specific for this disease.

It should be used in expectorant or slightly nauseating doses, once in two or three hours. It may be given in substance, infusion, or in tincture. Sweetening seems to add to its beneficial effects. The *oxymel of lobelia*, is the best preparation of the article for this disease, as it is about as prompt in its effects as any other, and, what is more, it is very pleasant and convenient to take.

WORMS.

(*Entozoa.*)

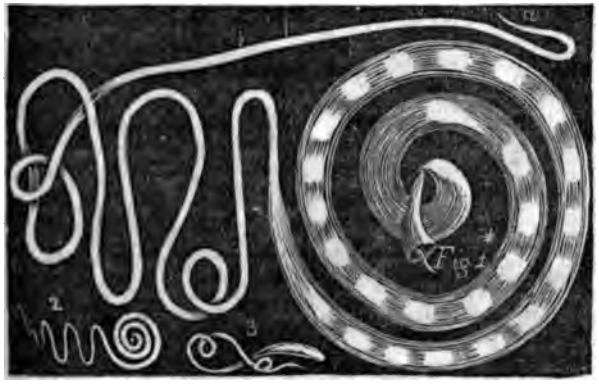
All animal bodies are supposed to afford habitations for other animals. But the means by which they gain their existence are as yet involved in mystery. There are, however, but two possible modes in which they may be produced in the body. They are either developed from ovula taken in, in some way, from without, or they are produced by spontaneous generation in the body. Many cogent arguments have been advanced on both these views; but as the matter is not demonstrated on either principle, it will be of but little use to give them here.

Parasitic animals are not only found in the alimentary canal, but in the liver, kidneys, lungs, brain, eyes, the flesh, skin, and, indeed, in most if not all other parts.

There are principally four kinds of worms which infest the intestinal tube—the lumbricus, tricocephalus, oxyuris, and tenia.

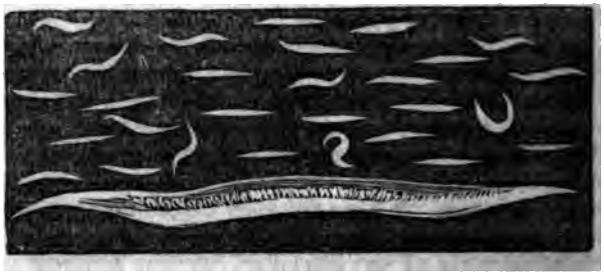
LUMBRICUS.

The lumbricus, or, more properly, *ascaris lumbricoides*, is a long, round or cylindrical worm, from three to twelve inches in length, and from an eighth to a quarter of an inch in diameter, tapering at each end, and of a reddish brown or dirty white color. It exists sometimes in great numbers, and is commonly found in the small intestines, and occasionally in the stomach. Hence, sometimes it is vomited up, or even discharged through the nose by its entering the posterior nares. Its presence is indicated by uneasiness in the stomach or bowels, irritation, and itching of the nostrils; a paleness and puffed state of the lips; foul breath; choking sensation in the throat; bloated abdomen; periodic or occasional paroxysms of fever, &c. But the only sure sign is their appearance in some of the evacuations.



TRICOCEPHALUS DISPAR.

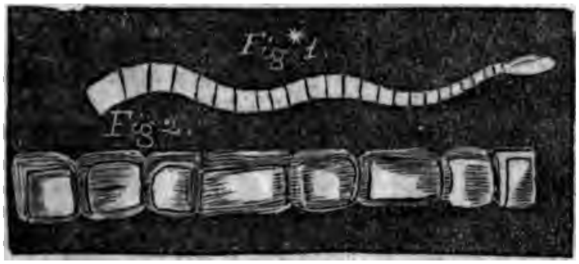
This is the long thread-worm found in the cæcum or first of the large intestines, but not generally in large numbers. It is from an inch and a half to two inches in length. About two-thirds of its length is quite attenuated, being scarcely larger than a horse-hair, while the other — the posterior portion — is considerably larger, and terminates in a rounded or blunt extremity, which, in the male, is coiled up and has a trumpet-shaped appendage, with a spike projection supposed to be the organ of generation. In the above cut, Fig. 1 represents the male many times magnified, showing its head at *a*. Fig. 2 represents the same of natural size; and Fig. 3 the female of natural size.



OXYURIS, OR ASCARIS VERMICULARIS.

This is the common *pin*, or *maw-worm*, which is of small size, and exists in great numbers. It is found in every portion of the intestinal tube, but occasions the most annoyance in the rectum. It is from an eighth to half an inch in length, and quite slender, and is mostly enveloped in the mucus of the intestines, and hence very difficult to be removed. The above cut gives many examples of the largest of the natural size, together with one specimen highly magnified.

Many individuals are affected with them in childhood, but get rid of them as they advance in age. Some, however, are troubled with them during the whole of a long life, although they are generally supposed to be less annoying after middle age than before. They often appear periodically, both in children and adults, after intervals of from three to six weeks. During these intervals they are neither felt, nor seen in the discharges. Their periodical return is announced by a sense of itching and burning at the extremity of the rectum, experienced chiefly in the evening, sometimes producing tumefaction and eruption in the neighboring skin. This irritation continues to recur every evening for perhaps a week or more; then ceases. During this time the worms are discharged alive and active in every alvine evacuation. Cathartics and injections bring away vast numbers of them, but without obviating the annoyance of those left behind. At length they spontaneously cease to appear, and the irritation subsides until another paroxysm of them sets in.



TENIA SOLINUM.

The tape-worm is a very formidable and troublesome inhabitant of the alimentary canal. It is sometimes of great size, as from thirty to forty feet in length. One of extraordinary size is mentioned by Dr. Sibbargaarde, of Çopenhagen, which measured one hundred and fourteen feet. It is flat, and something less than half an inch in width at its broadest part, and is composed of numerous joints or sections about the size, and nearly the shape of a *gourd* seed. These are often detached, and come away in sections of various length, as from a single joint, to ten or twenty feet of the body. The worm is not of an equal width throughout its length; its head and anterior portion of its body are extremely small.

Another species of the tape-worm, the *tænia lata*, or *bothriocephalus*, is common in Russia and Switzerland. This is represented below:

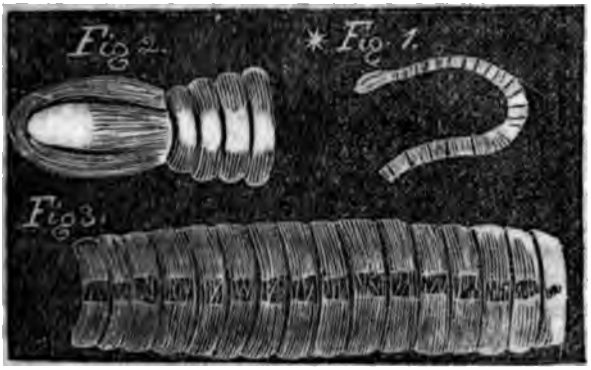
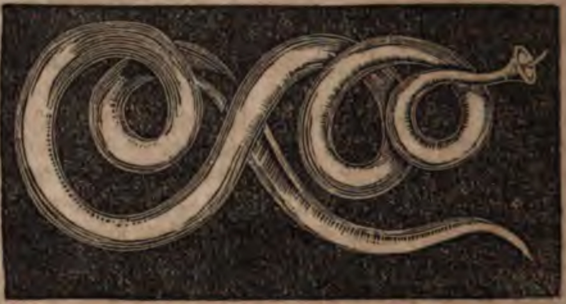


Fig. 2.
* Fig. 1.
Fig. 3.

BOTHRIOCEPHALUS.

Fig. 1, represents the head and anterior portion of the body, of natural size. Fig. 2, the head magnified. Fig. 3, joints of the body of natural size.

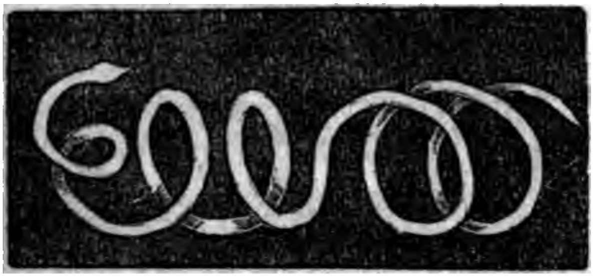
The signs of tape-worm are often very obscure, and its existence sometimes is not in the least suspected, until some portions or joints of it are observed in the passages. But generally, if the worm has attained considerable size, there is more or less uneasiness, pain—sense of weight—and sometimes a feeling of movement or crawling in the stomach, or bowels. The appetite is variable, but generally voracious; there is often nausea, itching of the anus and nose, and atrophy.



STRONGYLUS GIGAS.

One of the largest species of worms is found in the kidneys of man and of various quadrupeds. It is supposed, however, that it never exists, except when the structure of the kidney is destroyed or broken down. But it is uncertain whether they are the *cause* or *consequence* of the disease.

The strongylus gigas in shape is cylindrical, and tapering each way, and sometimes two or three feet in length. Its posterior extremity is terminated by a trumpet-shaped enlargement, from which, in the male, a spicular body supposed to be the organ of generation proceeds. The worm is sometimes discharged in the urine, and occasionally, when young or small, in considerable numbers.



FILARIA MEDENSIS.

The filaria medensis, or *Guinea-worm*, is a very troublesome species of entozoa, common in hot climates. It is found under the skin in the cellular and muscular substance of man and beasts. It has a round, smooth, and filiform body, about the thickness of a pigeon's quill, and sometimes from three to four feet in length. Sometimes they occasion but little annoyance, but at others they cause great pain and inflammation. When they appear at the surface, they may, with great care, be extracted entire.

FILARIA BRONCHIALIS.

A little worm of this denomination is very common in the lungs of inferior animals, and has in very rare instances been found in man.

Besides these, there are many other species of worms found in various portions of the body, but they are of less consequence. Among those noticed by authors, are the distoma, cysticus, acephalocyst, (hydatid,) spiroptera, echin, ococus, polystoma, &c.

Treatment.—The agents used to expel worms, may properly be said to consist of three kinds: 1, those that destroy the worms; 2, those that remove them by mere mechanical means; and 3, those that have a tendency so to tone up and fortify the system against them as will result, ultimately, in their expulsion.

The only intestinal worms of any importance, are the long round worm (*ascaris lubricus;*) the pin-worm (*ascaris vermicularis;*) the thread-worm (*trichocephalus* *dispar;*) and the two varieties of tape-worm (*tænia.*) These may, generally, all be removed by the same means. Nevertheless, some are found to require special remedies, sometimes.

The pink-root seems to be one of the best articles to remove the lumbricoides, or long round worm. It is best taken in infusion. Half an ounce may be boiled for two hours in a covered vessel; and then, after using gentle physic and spare diet for a day or two, the infusion should be taken, in doses of a table spoonful to the child, and a tea cupful to the adult, three or four times a day, for three days, when it must be followed with an active cathartic of senna, aloes, mandrake, or rhubarb, to carry off the worms.

If the use of the pink-root should not prove successful, the wormseed oil may be employed in doses of from five to ten drops to a child, and from fifteen to twenty to an adult. The medicine should be given two or three times a day for some three days, and then be followed with a brisk cathartic. It is a very common practice to mix the wormseed oil with some castor oil, thus making a vermifuge that is considerably popular. A formula for the preparation of this vermifuge is given among the compounds.

The male fern is also an excellent article for the removal of this variety of worms; it is given in powder or ethereal extract. The dose of the powder is from one to three drachms, to be given in the form of electuary or emulsion, and repeated morning and evening for one or two days, successively. The medicine should then be followed with a brisk cathartic of castor oil or senna.

When it is desired to destroy the animals, the cowhage will be found an excellent article. The common way of preparing it is to dip the pods into some syrup or molasses, and then to scrape off the spiculæ or hairs with the liquid, which, is in a proper state for administration when it has attained the thickness of honey. The dose of this mixture is a table spoonful for an adult, a tea spoonful for a child three years old, to be given every morning for three days, and then followed by a brisk cathartic.

The pin-worm (*ascaris vermicularis*) is much harder to expel than the long round worm. This variety chiefly occupies the rectum or lower part of the large intestines, and is hence not much affected by the anthelmintics used in the common way. It is best, therefore, not only to use the medicine per stomach, as ordered for the other varieties of worms, but to administer the same articles freely by injection. Aloes seems to answer best as a cathartic, after the proper anthelmintics are used, as it inclines to act more powerfully on the lower portion of the intestines. The dose of this medicine for the expulsion of worms, is from ten to twenty grains. It is, perhaps, the best plan to give ten grains morning and evening, until the desired effect is produced,—at the same time giving it by injection.

Equal parts of lime-water and milk, given by injection two or three times a day, will sometimes remove the pin-worms in large quantities. Spirits of turpentine with milk, in the proportion of a tea spoonful of the former to a gill of the latter, administered in the same way two or three times a day, will also be found a good remedy.

The annoyance from this variety of worms is very apt to be renewed, even in cases in which complete relief had been obtained. Whether the worms renewing the difficulty were cotemporaries with those removed, or whether they are a new generation, it is difficult to tell.

Perseverance in the treatment alone, will afford anything like permanent relief from the annoyance of these worms.

For the expulsion of the tape-worm, the bark of the root of the pomegranate is, perhaps, the best article that we possess. The best way to prepare the medicine, is to boil two ounces of the fine bark in two quarts of water, straining, and then boiling it down to one quart. Of this the dose is a wine glassful once in two hours until all is taken, when it should be followed up with a brisk cathartic.

The male fern is a remedy of great antiquity. Dioscorides, Theophrastus, Galen, and Pliny, speak of it. There is no anthelmintic that has had greater popularity than this. In 1775, the King of France purchased of Madame Nouffer, a Swiss lady, the knowledge of a secret cure for the tape-worm, that had gained great popularity. This remedy, which was published by order of the king, consisted of nothing more than the root of the male fern. The manner of its use was one large dose of the powdered root, (from one to three drachms,) to be followed in two hours with a brisk cathartic. If this process did not prove successful, it was to be repeated with proper intervals till the worm came away.

The medicine is, however, more commonly used in smaller doses for several days, and then followed by the cathartics.

All the other varieties of intestinal worms, may be successfully expelled by the means here recommended for those just treated.

Of late the medical journals have contained an account of a new remedy for worms, and especially for tape-worm. It is derived from the flowers of the Branera Anthelmintica, (Kousco,) a tree growing in Abyssinia. If this medicine should maintain the favorable accounts given of it, it is hoped that it will soon be introduced into common use here.

Those entozoa that occur in the parenchymatous, muscular and cuticular tissues, are of extremely rare occurrence; but when they do occur, they are removed with difficulty.

In the treatment of these cases, a strict attention to regimen is necessary. Cleanliness, above all other things, must be scrupulously observed; the diet, exercise, and other habits must be so changed and regulated as will favor a condition of the system opposite to that under which the parasites were produced. A syrup, made of meadow fern, narrow dock, burdock, and black pepper, should be prepared and used perseveringly. The body may be exposed to sulphurous vapor. The pomegranate bark should be taken two or three times a week, and an occasional dose of turpentine may be taken. Together with these means, a good constitutional or general treatment must also be instituted and persevered in. The digestion must be well sustained, and the secretions be kept pure and regular.

The medicines that are commonly used to invigorate and tone up the system, and thus to dispose, protect, and fortify it against the invasion and generation of worms or parasitic animals, are those of the bitter tonic class. Among the best articles, are poplar bark, wormwood, the twigs of the peach tree, white walnut bark, &c.; but all the bitter tonics are serviceable.

WOUNDS.

A WOUND is the solution of continuity in the soft parts of the body. They present many different appearances, as regards their situation; the parts implicated; their direction; size; shape; the nature of the instrument or agent by which they are produced; their more or less simple or complex character, duration, &c.

The wound is called *incised*, when made by a cutting instrument; when by a pointed instrument, *punctured;* when the parts are torn or broken down by the wounding body, the injury is called *laceration;* when, in addition to the wound, there is some venomous or poisonous substance introduced, as by the bite of a serpent, the injury is called a *poisoned wound;* when the injury is inflicted by an obtuse or blunt body, it is called a *contusion;* and when caused by a bullet or other body projected from fire-arms, it receives the name of *gunshot wound*.

Wounds also differ with regard to their liability to bleed. Incised wounds generally bleed very considerably, especially when large vessels are divided. Lacerated and contused wounds are less apt to bleed profusely; and punctured wounds sometimes do not bleed at all.

Treatment.—In the proper management of wounds, four important indications are to be fulfilled: these are—1, to stop the hæmorrhage or bleeding; 2, to cleanse the wound of such foreign substances as may have been obtruded into the part and left behind; 3, reduce or close up the wound, and so adjust the parts as will most favor the rapidity of the healing process, and the smallness of the cicatrix; and 4, to secure rest to the parts until they are healed.

When the situation and character of the wound will admit of the means of compression, the bleeding may in this way most generally be stopped. But if this fails, the most active styptics must be applied.

It happens, sometimes, when large arteries are divided, that the hæmorrhage cannot in any way be arrested short of a ligature. In those cases the artery must be immediately taken up and tied.

As hæmorrhage from wounds has been treated under a separate head, it is unnecessary here to add anything further. See accidental bleeding.

When the bleeding is arrested, the wound must be well examined by means of a probe, unless it is known from the cause or instrument by which the wound was inflicted, that no foreign substance can remain. But unless it is necessary to disturb the wound to remove extraneous bodies or to sew it up, or in any other way to reduce the orifice, the coagula or clots of blood and albumen effused into the wound should be carefully left to remain.

The wound being cleansed from foreign substances, the next thing to be done, is to bring its margins together as near as possible to their original position. This may sometimes be done by bandages, or by means of adhesive straps. But if this is impracticable, a few stitches may be taken through the margins of the wound, and the latter in this way brought together so as to favor the restorative process as much as possible. A few poultices of slippery elm may now only be necessary, and then the wound healed up as fast as possible, by the use of proper healing salves and rest.

Should there be much inflammation and pain during the treatment, relaxant and emollient poultices and washes will be required. Should ulceration set in, the sore must be treated as recommended for ulcers.

URINARY DISEASES.

Inflammation of the kidneys and bladder, as well as the gravel, have already been treated of; but there are other morbid conditions of those and the accessory organs, some of which merit notice here.

DIABETES.

Diabetes implies a superabundant secretion of urine. This mostly contains a very large proportion of saccharine matter, and is hence called *diabetes mellitus*. Sometimes, however, the urine is not sweet, when the disease is denominated *diabetes insipidus;* but it has been contended that the term diabetes, should be restricted to that form in which the urine is saccharine.

The occurrence of this disease is very remarkable indeed, since it is known in some instances to take place, without the least appearance of change in the organs which are concerned in the urinary secretion. In post-mortem examinations the kidneys have been carefully inspected, and in some instances not the least trace of disease could be found, while in none has there been sufficient change discovered to account for this singular phenomenon.

Diabetes comes on very insidiously, but the patient usually complains of more or less lassitude and weakness, and sometimes pain in the loins. The appetite is generally voracious, and the thirst pressing, but the digestion is poor. As the disease goes on toward a fatal termination, there is a feeling of exhaustion, difficulty of breathing, together with dropsical infiltration into the lower extremities, and general rapid emaciation takes place. The pulse, which at first is scarcely affected, now becomes quick and weak.

The urine is of a straw color and peculiar smell, and is evacuated perhaps six or eight times in the course of twenty-four hours, amounting in all sometimes to ten or twenty pounds daily.

The quantity of sugar in diabetic urine is very variable, but is usually near about an ounce to the pint.

Diabetes, if left to itself, is generally of fatal termination; but will run its course in very different lengths of time, as from a few weeks to several months, or even years.

Treatment. — The vegetable astringents are the principal agents to be employed in the treatment of diabetes. The extract of bayberry in three to five grain doses, often repeated, will sometimes alone be successful. An occasional emetic of ipecacuanha should be administered in bad cases, and the vapor bath, together with friction to the skin, are also very important adjuncts to the use of astringents in this disease. The skin is dry, and indeed most of the other secretions are deficient during the excessive flow of urine. The termination should therefore be brought to the surface, and no articles are better for this purpose than emetics and the vapor bath.

Tonics are also important means in this disease. A compound made of poplar bark, bayberry, and the bark of the root of common sumac, (rhus glabra) in the form of extract or infusion, taken freely, will scarcely ever fail to show its good effects.

Animal food is preferable to vegetable, in diabetes.

SUPPRESSION OF URINE.

The urine is more or less suppressed in all febrile, and many inflammatory diseases, and especially in inflammation of the kidneys; but it also happens that there is a failure in the secretion of urine, dependent upon simple atony of the kidneys, which is the condition most commonly implied by *suppression* of urine. In this case there is no inclination of the patient to void the urine, and total or nearly total suppression of this secretion sometimes continues for weeks, months, or even longer, without much disturbance of the general health. There is usually some nausea, constipation, and an occasional feeling of sinking experienced by the patient. Nevertheless, in some instances, the symptoms are more violent; thus vomiting, hiccough, restlessness, headache, and pain in the back, are experienced from the commencement. The pulse, also, is sometimes slower, which is said to denote danger.

Treatment.—Diuretics are the proper remedies in this disease, but the stronger articles, as turpentine and squills, must never be pushed too much, for they may do mischief sometimes, by producing inflammation of the kidneys and urinary passages. The eupatorium purpurium, clevers, oil of juniper, acetate of potassa, elder bark, melon seeds, parsley, &c., are all proper articles, and may be employed separately or conjoined, according to wish or convenience.

INCONTINENCE OF URINE.

Incontinence of urine is caused by a morbid irritation of the neck of the bladder, or paralysis of its sphincter, thereby rendering the individual incapable of retaining his urine.

Incontinence of urine is a very common difficulty with children during sleep. In these cases it is very much dependent upon habit, and may usually be remedied by disposing them to regular habits of discharging the urine. At first the subject should be wakened regularly about once in four hours, and induced to void the urine. Then, after this practice is continued for about a week or more, the interval may be lengthened to five hours, and so on, until the little subject will be able to retain the urine all night, and thus will be cured of a most inconvenient and filthy weakness. But in cases in which there is an irritation arising from an acrid state of the urine, soda or magnesia should be given every evening on going to bed, in doses of from three to five grains. In addition to this, flaxseed or slippery elm mucilage, will be serviceable.

In cases of adults in which there is irritation and burning in the neck of the bladder, it may be suspected that the urine is of an irritating quality, and should be examined. If alkalies effervesce on being mixed with it, or delicate vegetable greens are changed red by being immersed in it for a time, the urine may be excessively acid, and the irritation may be removed by mild alkalies, as subcarbonate of potassa or soda.

It may also be serviceable to employ emollient drinks, as the mucilage of flaxseed or slippery elm.

When there is no irritation, burning, or other disagreeable sensation in the lower part of the abdomen, in the region of the bladder, and when the urine passes off so easily that the patient is scarcely conscious of it, it may be justly presumed that there is paralysis of the sphincter of the bladder. In this case an irritating plaster or sinapism applied to the pubis, scrotum, or perineum, while some permanently irritating substances are taken internally, as mustard, turpentine, &c., will usually relieve the difficulty. In the old practice, cantharides, taken internally and applied externally, constitute the chief means relied upon. The remedy is usually effectual, but being inconsistent with the doctrine of safe remedies, this article cannot be recommended here. Injections of the infusion of capsicum through the urethra by means of a syringe, will be equally effectual, and at the same time perfectly safe.

DYSURY; STRANGURY.

Dysury implies a difficulty in voiding the urine. It may be secreted in sufficient quantity, but its discharge may be suppressed by inflammation and consequent swelling of the ureters, (ureteritis,) inflammation and swelling of the bladder, (cystitis,) or inflammation of the urethra, (urethritis.) In the first instance there is a burning pain and pressure experienced in the loins or region between the pubis and kidneys; in the second, there is a pain and distension in the bladder; (see inflammation of the bladder;) in the third the symptoms differ little from the latter, except that the pain is felt lower down, *i. e.*, in the urethra.

Treatment.—Mild and unirritating emollient diuretics, as flaxseed and clevers, parsley root or melon seeds conjoined, are proper specific remedies. The general remedies are relaxants, as lobelia, thoroughwort, and the vapor bath. Local remedies, as mustard plasters to the pubis, loins or penis, together with injections of cold water, infusions of lobelia, flaxseed mucilage, &c., as occasion may require, will be all-sufficient.

ARDOR URINÆ; SCALDING OF THE URINE.

Scalding of the urine is dependent upon the presence of acrid principles contained in it. These are generally of an acid character, which may be known by the tests spoken of under the head of incontinence of urine.

Sometimes other acrid principles are contained in the urine, that may be derived from improper medicine or food, as cantharides, excessive doses of turpentine, copaiva, arsenous acid and mercury, among the first, and mustard, peppers, &c., among the latter.

Treatment.—Endeavors should be made to discover the cause. If this be an acid, it may be neutralized by the mild alkalies, as the carbonate of soda, subcarbonate of potassa and magnesia. If it be dependent upon improper medicine or food, these must be discontinued, and their effects obviated by emollients; flaxseed mucilage, marsh-mallows, slippery elm, the white of eggs taken raw, sweet milk, &c., are among the best of these.

DISEASES OF THE SKIN.

Skin diseases, among the inexperienced, are always attended with much perplexity, as many of them are so near alike in their symptoms and general appearance. It is thought, therefore, that a brief notice, in this place, of some of those which are less generally understood, would be advisable here. But the most important among the febrile and inflammatory eruptive diseases having been already noticed, it therefore only remains now to consider the simple or minor cutaneous diseases.

ERYTHEMA.

(*Maculæ volaticæ*; *Intertrigo*; *Dartre erythemoide*; Inflammatory blush; Tooth rash; Gum.)

This is a non-contagious exanthematous affection, characterized by small superficial red patches, irregularly circumscribed, and of variable forms and extent. They appear on every part of the body; but are most frequently seen on the face, chest and limbs. The eruption sometimes accompanies fevers, teething in children, and menstruation, but is mostly simple and without fever, and disappears in from one to two weeks.

Erythema may be distinguished from scarlatina by the mildness of its attack, the circumscribed appearance of the eruption, and by the absence of anginose affection. From measles it may be known by the diffused and well defined character of the eruption, and the absence of catarrhal symptoms. The eruption of erysipelas resembles this considerably; but in that there is much more inflammation, pain, and burning of the skin, and the redness is also darker, and is not so easily misplaced by a white appearance on pressure with the finger, as in erythema.

Two varieties of erythema are noticed by authors — the *erythema papulatum*, having smaller and more elevated or pointed eruptions, more common to females and boys, occurring on the neck, arms and chest; and the *erythema nodosum*, which occurs among children of soft, lymphatic temperament, and appears mostly on the extremities. In this variety the red patches are generally of an oval form, and slightly raised in the centre, where a small tumor is apt to form and present signs of suppuration, but soon disappears again and is replaced by a blue stain. The disease usually disappears in twelve or fifteen days.

Treatment. — This affection seldom requires medical treatment. Washing the parts in cold water, and applying the lime-water liniment recommended for burns, together with aperients and vegetable diet, will be sufficient.

UTICARIA.

(*Nettle rash; Hives.*)

This is a non-contagious exanthematous affection most common to young people and those of sanguine temperaments. It is characterized by irregularly shaped prominent patches or wheals of various sizes, which are always accompanied by a very troublesome smarting, burning and itching sensation. This sensation induces the patient to scratch and rub the parts, and thus he irritates them still more and enhances the annoyance.

Uticaria has been divided into three varieties, — 1, *uticaria febrilis*, which is attended by slight fever and nausea; this is much the most common form of the affection, and its eruption answers best to the description already given; 2, *uticaria evanida*, which is unaccompanied with fever, has small and less irritated wheals, and which usually disappears in a few hours; and 3, *uticaria tuberosa*, which is a rare variety, but a much more severe one than either of the foregoing. In this we find, instead of slightly elevated blotches, there appear hard, deep seated and painful tuberosities which often impede motion. These generally occur on the extremities and hips, and come on in the evening and night, and disappear the next day.

Treatment. — When medical treatment becomes necessary, the application of the acetate of ammonia, will generally effect a cure; salt water, or, what is better, salt and vinegar, also simple cold water freely applied, are serviceable. A cathartic may also be sometimes advantageous.

MILIARIA.

(*Sudamina; Febris miliaris;* Miliary fever.)

Miliary is a vesicular eruptive affection which is very generally symptomatic of some other diseases. The eruption consists of numerous vesicles not larger than a millet seed, which are spread over various sized sections of any part of the body, but appears mostly on the trunk.

Miliary is characteristic, also, of a specific fever called the *miliary fever*, which prevails epidemically sometimes. It attacks adults of the lymphatic or sanguino-lymphatic temperament; and women are more subject to it than men.

Eczema is the only affection with which miliary may be confounded; but the rapid progress and short duration of the latter, however, make a marked difference between them.

Treatment. — The vesicular eruption seldom requires any particular treatment. If the original disease which gives rise to this be removed, the miliary will soon disappear. In miliary fever, the cold or shower bath is an important means of cure. This, with aperients or mild cathartics, will usually be sufficient.

VARICELLA.

(*Variola spuria; Pemphigus varioloides;* Chicken-pox; Swine-pox.)

Varicella is a non-contagious, vesicular, eruptive disease, which has sometimes been considered a modification of small-pox or varioloides, but is usually treated of separately, and considered a distinct disease at the present time.

Two varieties of varicella obtain. In one, the vesicles are small but slightly elevated, and contain a colorless fluid. This is commonly called *chicken-pox*. In the other, the vessels are large, globular and soft. The fluid contained is at first transparent, but finally assumes a milky appearance. This is called *swine-pox.*

Varicella lenticularis, or chicken-pox, at first appears in small, red, irregularly rounded elevations, at the centre of which minute transparent vesicles are quickly formed. The vesicles enlarge for a few days, some appearing accuminated and others flattened. About the second or third day, the fluid contained becomes whitish, there is much itching about the vesicles, and the latter become shriveled and disappear in small scaly incrustations.

Varicella globata, or swine-pox, is preceded by the same symptoms, and is developed in a similar manner to the foregoing; but the red spots are quickly replaced by large vesicles, the fluid of which, though at first transparent, becomes opaque about the second day of the eruption. The vesicles have then attained their greatest size—are soft and flabby to the touch, of a pearly whiteness, larger in circumference than at the base, and are surrounded with an inflammatory areola. About the third day there is much itching in the vesicles; the fluid becomes thicker and yellowish; and the vesicles dry up and disappear in scabs, unless they are scratched off sooner, which is often the case among children, from the disagreeable itching; and when this is the case, the vesicles are replaced by pustules, which, on drying up, leave marks like small-pox.

Treatment.—The treatment of varicella is very simple. It is only necessary that the patient should avoid exposure to the wet or cold, and drink an infusion of the black cohosh or boughs of hemlock. Saffron, catnip and chamomile are the usual domestic remedies.

ECZEMA.

(*Crusta lactea; Dartre squammeuse humide;* Humid Tetter; Running scall.)

Eczema appears under different varieties, which are all non-contagious, vesicular, scaly or scabby affections, appearing on various parts of the body, but mostly on the hairy scalp; around the beard; in the axilla; on the pubis, breast, hands; between the fingers, &c.

1. *Eczema simplex.*—This variety somewhat resembles the itch, and occurs in the form of minute vesicles crowded together on different parts of the skin, but most commonly on the arms, hands, and particularly between the fingers. The vesicles desquamate or burst, and form small, thin, scaly disks which soon become detached.

2. *Eczema rubrum.*—This variety presents a feverish eruption of a bright red color. The skin is prickly, and covered with small, prominent, white-looking points, which at a more advanced period become true vesicles of about the size of a pin's head, with transparent points, and red, inflammatory bases. The disease may now end in resolution—the vesicles exfoliate, and the redness disappear—or it may assume a more aggravated form. Instead of subsiding, the inflammation may persist or even become augmented, the vesicles become confluent, burst, and give exit to an excoriating fluid, which will extend the eruption where it comes in contact. This serosity, however, usually soon concretes, and forms soft, thin incrustations that may scale off and the affection disappear, or they may be frequently renewed and the disease become chronic.

3. *Eczema impetiginodes.*—This variety is much like the preceding in its commencement, but soon becomes more aggravated. The inflammation is more considerable; the skin more swollen under the eruption; some of the vesicles become pustular, and the fluid contained in them becomes purulent. The vesicles and pustules become confluent or conglomerated, and produce large crusts which fall off, and are reproduced successively. There is an almost constant discharge of a serous and irritating fluid, which excoriates and inflames the parts with which it comes in contact. Sometimes chaps or

fissures are formed between the fingers and other parts of the hands, which are often quite painful. This form of the disease is apt to become chronic.

Eczema may be confounded with various other eruptive diseases, and hence it is important that the inexperienced practitioner should observe the character of the affection closely. Eczema simplex may readily be mistaken for the *itch;* but in the former, it will be discovered that the vesicles are flatter and are closely grouped together, while in scabies they are isolated, or at least never so closely compacted. The itching of eczema also is of a smarting or painful character, while in scabies it is not painful, but affords more pleasure to scratch the parts. The itching is also augmented more in the latter by heat, as sitting before the fire.

Eczema rubra may be mistaken for miliary, but in the latter the vesicles are never confluent as in the former. The latter is also attended with much perspiration, while the former is not, and besides the vesicles in miliary are larger than those of this variety of eczema.

The last variety of eczema is often confounded with impetigo. But it will be discovered, that in the latter the vesicular eruption occupies only small surfaces, while the former invariably spreads over large sections. The pustules of impetigo, moreover, are never transparent at the beginning, and they are larger at the base and contain a thicker fluid, while those of eczema impetiginodes are always vesicular at the commencement, and never contain true pus, but only a yellowish seropurulent fluid.

Treatment. — In the milder forms, eczema seldom requires much medical attention; but in the chronic and more aggravated character of the disease, it is often very difficult to cure. One difficulty with many is the mistaking this affection for the itch, and thus applying sulphur and various other irritating preparations for its cure, and which only irritate the parts and enhance the disease.

If the vesicles are clear and unbroken, the acetate of ammonia may be applied three or four times a day, and a cloth saturated with the stramonium ointment worn over the part, until the cure is completed. Or if the disease appears in the form of crusts or scales, the parts may first be washed off with soapsuds, and then a linen cloth saturated with a strong decoction of geranium, sumac bark, or oak bark may be worn over it, and kept wet with the decoction. A strong *infusion* of these, or some other of the more active astringents, will sometimes answer for this purpose. The mild solutions of acetate of lead, or sulphate of zinc, will sometimes prove more effectual than the vegetable astringents.

The tincture of lobelia has in some instances proved serviceable, as an application to the eruptions at the times of the dressings.

Oiled silk, or gum elastic paste, applied and worn over the parts for a week or two, have removed the complaint. These agents serve to shield the parts from the air and other irritating causes, while nature effects the cure.

HERPES.

(*Dartre; Olophlyctide;* Tetter.)

The term herpes was formerly applied to many and different eruptive diseases, but is now employed in a more definite sense. The term now implies a non-contagious vesicular eruption, appearing in groups on an inflamed base, perfectly circumscribed, and separated from each other by intervals of sound skin. The eruption generally appears in an acute form,—continuing from one to three weeks, although in some of its forms it may last longer and thus become chronic. It is never accompanied with danger, and is seldom very troublesome.

Herpes presents several varieties in the form and seat of the eruption, which are designated by different names.

1. *Herpes phlyctenodes.*—This is the name by which herpes is known, when it has no determinate form or peculiar seat. It may be observed in eruptions of small vesicles, grouped together on any part of the body, and often on several parts at the same time. These groups are of various sizes, as from that of a dime to the size of a man's hand. The vesicles are of different sizes, most of them are very minute, but others are often as

large as a pea. They are hard, globular, and transparent the first day, but the next, or even before, the fluid changes to a milky tint. An itchy sensation, which is often quite painful, usually accompanies the appearance of the eruption. The vesicles commonly begin to fade about the third or fourth day, and by the seventh or eighth they usually disappear. Some of them contain a purulent fluid, others are transformed into brownish incrustations. These soon desquamate; but slight ulcerations are occasionally observed here and there in the incrustation.

2. *Herpes labialis.* — In this form of the affection, the eruption is about of the same description as in the foregoing, but is confined to the lips or the margin of the mouth.

3. *Herpes preputialis.* — This differs from other forms of herpes in being confined in its development to the prepuce, and in its vesicles being more apt to dry up by the absorption of the fluid contained in them. About the time they appear, they are attended with an itching, and when the vesicles break, there is some smarting. The disease may terminate by desquamation in a few days, but when the vesicles, instead of drying up, degenerate into crusts, it may last several weeks.

4. *Herpes zoster; Zona;* Shingles. — In this form of herpes the eruption appears in a belt, or a well defined stripe around the body, generally about the waist, and mostly on the right side. It consists, not of the continuation of a single group, but of a series of little groups arranged in a line. The affection in the production and disappearance of its vesicles, is like the foregoing species of herpes.

5. *Herpes circinatus;* Ring-worm. — This is a form of herpes of very frequent occurrence. It is characterized by the appearance of extremely small globular vesicles arranged in the form of circles, the centre of which is free and the border red. This circular border is often broad when compared with the unaffected centre. These circles are of various sizes, as from a half an inch to two or three inches in diameter. When the circles are small, the redness is blended into the centre, but the latter is still much whiter than the border or ring.

This form of herpes usually runs its course in from one to three weeks, and may end in desquamation, or crusts may form, dry up and peel off. The eruption, however, is apt to recur and run a similar course at uncertain intervals.

6. *Herpes iris.*—This is a form of herpes of extremely rare occurrence. It consists of small vesicular groups, perfectly circular, and forming four erythemetic rings of different shades of color. The people often compare it to small cockades. The affection usually disappears by the absorption of the fluid contained in the vesicles, and the desquamation of the eruption.

Treatment.—Herpes is generally left to its course by the people, being so mild as not to require much attention. It is, however, often situated on parts that make it desirable to do something to remove the eruption sooner than it would disappear of itself. A solution of acetate of lead, or of sulphate of zinc, will generally remove it in a few days. Equal parts of the iodine and stramonium ointments, mixed and applied, will also be found quite serviceable, although it stains the skin some for a few days.

℞ Tincture Lobelia, . .
Tincture Sanguinaria, . Equal parts.
Tincture Phytolacca, .

Mix and apply to the parts affected. This forms a very convenient and effectual remedy for herpes.

The recent juice of the root of the sanguinaria, will also generally remove the eruption in three or four applications.

IMPETIGO.

(*Dartre crustacée; Lèpre humide;* Crusted Tetter; Running Tetter; Cowrap.)

This is a non-contagious disease of the skin, characterized by an eruption of psydracious pustules, most commonly grouped in clusters, and forming thick, yellowish, rough incrustations. Several varieties are commonly described.

Impetigo figurata.—This variety appears mostly on the face, and especially on the cheeks; it is, however, often met with on the extremities, and various parts of the body, and usually attacks children during dentition, and young persons, of both sexes, of a lymphatic or sanguineous temperament, with a fresh color and fine delicate skin. It occurs most frequently in the spring, and some individuals are periodically affected with it for years.

When it is developed on the face, it frequently appears in the form of small, distinct, red, and slightly raised patches, which are immediately covered with small pustules nearly confluent. These patches may remain isolated, or else become united by the formation of pustules in their interstices.

The pustules, which appear from the beginning, are small, confluent, and very slightly raised above the level of the skin. They burst between twelve and thirty-six hours from their formation, and discharge a purulent fluid. The heat, itching, and tension, become almost intolerable. As the pustules burst the fluid is discharged, but soon dries up, and forms thick, yellow, friable, semi-transparent incrustations, which have some resemblance to the gummy exudations from peach or cherry trees, or to layers cf concrete honey. The surface under the scabs is red and inflamed. When the disease is not prolonged by successive eruptions, it remains in this incrusted condition from two to four weeks. The itching and heat then subside, the exudation diminishes, and the scabs are gradually, but irregularly detached. The skin remains red, tender, and shining for some time after the crusts are removed. The disease is sometimes prolonged by successive eruptions, either on the same or new places for many weeks, or even years.

Impetigo larvalis.—This species of impetigo is characterized by an eruption of superficial pustules of a whitish-yellow color, more or less confluent, and arranged in groups. The pustules are succeeded by yellow and greenish scabs, sometimes thin and laminated, sometimes thick and rough, and thus bearing a resemblance to those of eczema impetiginoides, and impetigo figurata.

Impetigo larvalis occurs most frequently in young subjects, especially infants. It may appear on any part of the body; but the hairy scalp, the ears, and the lips, are its most common sites. The face is sometimes almost completely covered with thick crusts in the form of a mask, hence the name *larvalis*.

There are several varieties of this species of impetigo. In very young infants the disease consists solely in the formation of small pustules, which spread over the scalp, temples, &c., producing incrustations of variable size, but generally thin, which have usually been called *crusta lactea*.

When the eruption is characterized by the presence of small, isolated, grayish scabs, of an irregular form on the posterior part, or on the centre of the hairy scalp, the eruption is called *impetigo granulata*.

Impetigo is most common among the poorer classes of community, many of whom have not ambition sufficient to keep their children clean.

Treatment.—In mild cases it may be sufficient to wash the parts clean several times a day with soapsuds, and applying a strong infusion of some of our best vegetable astringents three or four times a day, until the eruption disappears.

In bad cases, in which the crusts are thick, it will be necessary to cut the hair close, when the disease is located on the hairy scalp, and then applying emollients, as a cataplasm of marsh-mallows, slippery elm, or bread and milk, and replacing the applications by fresh ones until the crust is well softened, so that it may be easily removed. The parts should then be well washed with soapsuds, and then dried by touching gently with a soft piece of linen. After this a solution, made by dissolving a drachm of the extract of bayberry and a fourth as much of the extract of sanguinaria in four ounces of boiling water, should be applied every three hours sufficiently to wet the parts, and then the latter well shielded during the intervals, between the applications, by means of oiled silk. If a cloth saturated with the above solution be worn over the eruption and under the oiled silk, it will prove more effectual.

The vapor bath is of eminent service in impetigo, and has often proved effectual alone.

It seems that the same plan of treatment will not answer equally well in all cases. In rare instances, therefore, it will be found that unctuous applications as the paste made by dissolving gum elastic in lard or what is better, the stramonium ointment employed for this purpose instead of lard, are better than the other applications.

A solution of potash of suitable strength, will in some instances prove very serviceable. The solution of sulphate of zinc and crocus of iron, employed in chronic diseases of the eyes, if frequently applied, will prove its good effects.

The acetate of ammonia here suggests itself to the mind of the author, although he has never employed it in these cases. If we may judge from analogy, however, this must doubtless prove serviceable, and the remedy is respectfully submitted for trial.

During the local treatment, constitutional means must not be neglected. A compound of podophyllin and guiacum in laxative doses, should be taken, so as to keep the bowels gently open.

PORRIGO.

(*Tinea; Favus;* Scald; Scald-head.)

Porrigo is a very contagious, pustular disease, chiefly affecting the scalp, but it may also appear on other parts of the body. The disease may be known from all other eruptive affections, by the favus or honeycomb appearance of the pustules. These are small, perfectly rounded, and imbedded in the epidermis, and contain a yellowish or straw-colored matter, which soon concretes, presenting a depression in the centre, which may be detected in the nascent pustule, with the aid of a magnifying glass. In the course of a few days, this yellow matter is converted into thickish cellular slightly prominent scabs, which go on increasing for some time, and which are sometimes pitted or umbilicated in the centre, but at other times lose this character, and are thick, hard, and of a grayish-yellow color. The disease is more common among children than adults, and is met more frequently among the poorer classes of community, who have not sufficient energy or ambition to keep their children clean.

Porrigo appears chiefly under two forms: *porrigo favosa*, or common *tenia;* and *porrigo scutulata*, commonly called ring-worm.

Porrigo favosa.—This is the most common variety of porrigo. It makes its appearance by an eruption of very small, flat, deep-seated, umbilicated pustules, which soon concrete, and form small bright yellow and very adhesive scabs, which retain the umbilicated appearance of the pustules. The scales gradually increase, always presenting a depression in the centre, unless coexistent with other incrustations, when the disease is not so easily detected; and they are highly contagious.

The hairy scalp is the principal seat of this affection, though it may appear on the forehead, the temples, eyebrows, chin, &c.; but it generally commences on the scalp, and then it may spread to other parts.

The pustules of porrigo are always accompanied with itching, which is sometimes very considerable. Sometimes lice are collected under the scabs in children that do not receive proper attention, and these occasion an intolerable annoyance. In this case, the odor, which is always disagreeable in porrigo, becomes exceedingly offensive.

When the disease is left to itself, it may continue for months and even years, in various degrees of virulency.

Porrigo scutulata.—This is a chronic contagious affection of the scalp, characterized by favous pustules arranged in circular clusters, the centre of which is not so crowded with pustules as the circumference. The pustules are succeeded by scabs which are thin and small at first, but subsequently becoming thick and raised, and coalescing, form incrustations of considerable extent, but still bearing the anular shape. The special seat of the disease is on the scalp, but when the virus comes in contact with other parts, it may give rise to an eruption. The scabs in this variety of porrigo, have the same cupped appearance as those of the preceding variety, but they are not so yellow in their color. The pustules are traversed by hairs, and in the suppuration and incrustation, the latter are detached from the scalp, so that on the removal of the crusts, the skin, which is red, inflamed and tender, is exposed. This, like the foregoing variety, is generally of long duration if neglected.

Treatment. — The first thing to be done in attempting a cure in this obstinate disease, is to remove the hair, and the crust formed upon the skin. A pair of scissors or a razor will serve to remove the hair, and then the crust should be moistened by an alkaline solution, made by dissolving two drachms of the carbonate of potash, or three of the carbonate of soda, in a pint of water. After the crust is well saturated with the alkaline solution, an emollient application, as a cataplasm of marsh-mallows or slippery elm must be made, and renewed at suitable intervals until the crusts are softened and removed. At each renewal of the emollient applications, the alkaline solution should be applied as before. Washing the parts with strong soapsuds, will much facilitate the removal of the crust. As soon as the hair and crust are removed, the parts should be well washed with suds made of soft or rain water, and common soft soap, and then after drying by means of a soft linen cloth, a solution of the extract of bayberry, or of equal parts of this and the extract of dock-root should be applied, and then applying a paste made by dissolving some gum elastic in stramonium ointment, over which some oiled silk may be placed to protect the parts still more from the atmosphere. The latter application should be renewed every morning and evening, and the parts well washed with strong soapsuds, and after drying, saturated with the astringent solution as before.

It will be observed, however, that porrigo is exceedingly difficult to manage, and that the same treatment will not always prove successful. Thus the astringent and oily applications may be superseded by other similar or different applications. But all the other parts of the treatment are proper in every case.

In some instances, however, lime has proved more effectual than either potassa or soda, for the alkaline solution. A table spoonful of lime may be thrown into a half pint of soft water; then after stirring it and letting it settle, the solution may be thrown off for use.

An ointment made of equal parts of finely pulverized black pepper, tallow and tar, melted together, has in some instances filled the place of the paste above recommended very well. The ointments hereafter directed for scabies have also been effectual.

The above treatment, if perseveringly applied, will generally be effectual, but in cases which do not yield to this, or which at the commencement appear or may have been known to be obstinate, the emollient application may be compounded as follows:

℞ Slippery elm, . . .	3 ounces,
Phytolacca, (poke-root,)	4 drachms,
Lobelia herb, . . .	1 ounce.

Pulverize finely, and mix up with boiling water to a proper consistence. This is to be applied in the same way and in the same connection with the other treatment, as before directed. The astringent solution must also be rendered more active, by the addition of half as much of the extract of the phytolacca, as is taken of each of the other extracts.

Pyroligneous acid, creosote, muriatic and sulphuric acids, properly diluted with water, have been highly esteemed as incidental or auxiliary applications.

The local treatment of porrigo should always be accompanied with proper constitutional treatment. Among the best constitutional remedies are general bathing, particularly vapor bathing, the alterative syrup and laxative tonics.

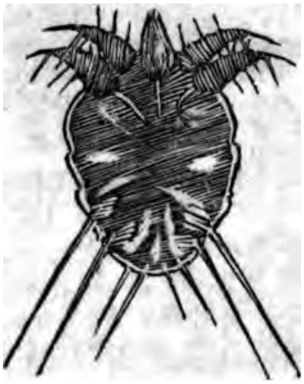
SCABIES.

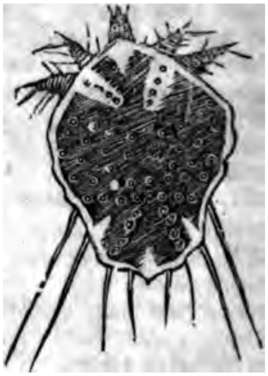
(*Psora;* Itch; Rogne; Gale.)

The itch is an essentially contagious affection, characterized by an eruption of vesicles, usually distinct, slightly accuminated, transparent at the point, somewhat larger at the base, and accompanied with a constant annoying itching which is much enhanced by heat, as when the subject is warm in bed or near a fire. Sometimes some of the vesicles appear pustular, and, when scratched, a scab will crown it, which, when it is again removed, is followed by a very slight appearance of blood; and on continued irritation from scratching, some of the pustules will occasionally ulcerate slightly.

Scabies may attack every part of the body with the exception of the face; but it affects some parts more frequently than others—as, for example, the angles between the fingers, the wrists, internal side of the arm, &c. It is common to all ages and both sexes, and appears in all seasons, in every clime, and in all classes of society; but the lower classes, who are less observant of cleanliness, are most liable to it; and it seems to be more prevalent in winter than in the summer season.

The itch is often complicated with other cutaneous diseases, as *prurigo*, *litchen*, *eczema*, *impetigo*, &c., which make its diagnosis somewhat difficult; but when the affection is simple, it can always be easily recognized.





Scabies appears to be caused by a very small insect—the *acarus* or *itch-ciron*, which may be found in a small superficial canal in the skin, about an eighth of an inch from the vesicle. The above cuts represent an upper and under view of the animal highly magnified. Its shape is somewhat like that of the *tortoise*, and its back is beset with stiff bristles. Its apparatus for digging seem to be well developed, and from their appearance it is not wonderful that they are capable of producing such intolerable itching.

The time required for the development of the affection from the time of contact to the contagion, seems to be very varied, as from one day to three weeks, depending upon the delicacy of the skin, the age of the subject, or the presence of other diseases, which latter always postpone the eruption.

Treatment. — Sulphur seems to be the remedy for itch. This article appears to be poisonous to the insect producing it. The method of applying the remedy is varied according to convenience or taste. All the following are good preparations:

℞ Sublimed Sulphur,	½ ounce,
Oil of Burgamot,	½ drachm,
Lard,	2 ounces.

Mix well, and apply every evening for four or five days, washing the body and changing the clothes occasionally in the meantime.

℞ Sublimed Sulphur,	½ ounce,
Subcarbonate of Potass,	2 drachms,
Lard,	2 ounces.

Mix, and apply as above.

℞ Sublimed Sulphur,	½ ounce,
White Soap,	½ "
Lard,	2 ounces,
Oil of Burgamot,	1 drachm.

Mix, and apply as above. This is one of the best and most agreeable preparations for the itch.

℞ Sublimed Sulphur,	½ ounce,
Soft Soap,	1 "

Mix, and apply every evening for six days.

℞ Sulphuret of Lime,

Mixed with a little olive oil, and applied to the palms of the hand twice a day, is regarded a pretty certain remedy.

MATERIA MEDICA.

The term *Materia Medica* simply implies matter of medicine, and is usually understood to comprise all the substances employed for the purpose of curing disease. This, however, makes an unnecessarily large list of remedies, and hence the limits of the authorized materia medica have been restricted from time to time, so that, notwithstanding the continuous discoveries in this department, the list is still within reasonable limits.

Medical reformers have subjected the materia medica to still greater scrutiny. As adopted by them, it is divested of all articles that are intrinsically poisonous; and another peculiarity is, that the medicines are mostly *organic*, and are chiefly selected from the vegetable kingdom.

It has been objected, that no such discrimination, as to the poisonous character of medicines, can be practically made, and that all substances, as even our food and drink, under some circumstances, may prove mischievous. But the fact is overlooked here, that when the *circumstances* attending their employment is alone the cause of the mischief, it is at once evident that the agents are not intrinsically poisonous. It is unnecessary, however, to enlarge here on this point, as the subject has already been discussed. See Preface.

In the following short treatise on *materia medica*, the several articles are classed off according to their most prominent therapeutic effects, thus affording facilities to the practitioner that are not to be found in the old alphabetical arrangement. The practitioner need only to turn to the class of the agents required, when he is at once presented, not only with a list of the most prominent agents of the kind, but he will know their comparative value by the order in which they appear in the chapter.

CHAPTER I.

MEDICINES AFFECTING, MOST PROMINENTLY, THE ALIMENTARY CANAL AND ITS CONTENTS.

I. EMETICS.

EMETICS are substances whose specific action is on the stomach, and which are capable of exciting this organ so as to produce vomiting by means independent of a mere distension, or of any nauseous taste or smell; but which, by their peculiar irritating effect on the nervous coat of the stomach, uniformly, either independently, or by consent of the muscles of the diaphragm and abdomen, bring about alternate contractions and relaxations of the muscles of this organ, so as to eject its contents.

About the propriety of the use of emetics, there is now but little dispute; although there are still some who contend that emesis is not a natural indication in the cure of disease. They seem not to recognize irritability as an element necessary to the physiological condition, and hence regard all substances irritating the nerves as injurious. Experience, however, proves the absurdity of this doctrine, and abundantly establishes the utility of emetics in the cure of disease.

The importance of keeping the stomach clean, and in a healthy condition, will appear when we consider that this is the ultimate source of all the humors and secretions of the entire body, and that when the contents of this organ are vitiated, all the humors will be corrupted in a corresponding degree; nor does this view embrace all that is important in the premises; for the operation of emetics is generally attended with an increased activity of the absorbents. The relaxation common to the operation of an emetic is also, in many cases, of great service, especially in such as spasms, asthma, cynancha, and rheumatism. Emesis is likewise a great promoter of expectoration, and still more of perspiration.

The shock or agitation given to the entire system in the act of vomiting, is, in some instances, of great benefit. Dropsies, consumption, liver complaints, and many other violent diseases, are often known to yield to it. By the same means emetics also exert a beneficial influence over the nervous system: and to the several conditions brought about by their use, fevers are known to yield more readily than to the operation of any other medicine.

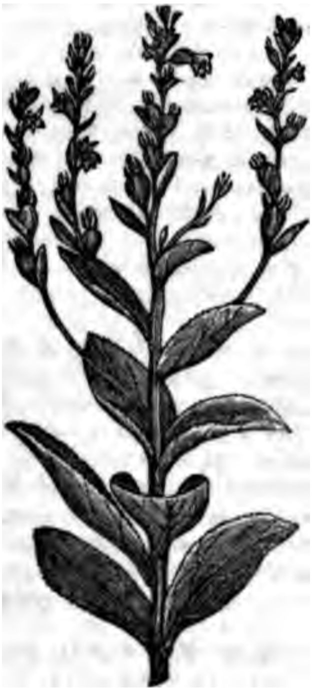
The stomach being, as it were, the centre of sympathy, much depends on its condition in view of this relation; and here it is worthy of remark, that physicians have not generally been sufficiently particular in their diagnostic and pathological researches.

Finally, the evacuations produced by emetics are by no means confined to the stomach; the compression produced by the contraction of the muscles of the diaphragm and abdomen causes a free discharge from the liver, and hence is important when this organ is obstructed by thick and vitiated bile. This is brought up by an inversive action of the duodenum; and, as already hinted, the capillary and bronchial vessels are generally much relieved by the use of these agents.

In the use of articles of this class, attention should be paid to the following particulars:

1st. Unless circumstances require the immediate evacuation of the stomach, emetics should be administered in broken doses, repeated at short or suitable intervals, until the desired effect is produced; as the susceptibility of the stomach to the impressions of these medicines varies much in different individuals, and in the same individuals at different times. By these means, therefore, any individual may receive his proper dose, as he will generally vomit when he has received what is sufficient for him.

2d. As the contents of the stomach in diseased habits of this organ, are often in different chemical states, it sometimes becomes necessary to correct certain conditions in order to procure emesis; thus, for instance, when the stomach is in an acid state, it becomes necessary to use an alkali; and, as this condition is the most common hindrance to emesis, it is well, as a general rule, to observe the precaution of giving a small portion



Lobelia Inflata, (Lobelia).

of soda dissolved in warm water, or some other suitable alkali, in the same way, in all cases when emesis does not take place after a suitable portion of the emetic has been taken.

3d. When there is much fever or congestion, emetics should not be given in doses sufficiently large to produce vomiting, until the system is first well relaxed, and the pores of the skin opened.

4th. During the operation of emetics, the patient should drink freely of warm diluents, such as *bayberry*, *thoroughwort*, *chamomile*, or even *warm water*. When the emetic sickens and does not operate, and especially if it relaxes the system much, the drink should consist of some astringent infusion, such as that of the astringent compound, or any of its ingredients. Indeed, many physicians are in the habit, universally, of preparing the emetic in a tea of some astringent article, and then to give the latter freely as a drink during the operation. Should the operation be protracted and fatiguing, the patient may be supported by drinking some nourishing broths, gruel, or porridge. The patient is often thirsty, and calls for cold water during, as well as after the operation of an emetic; but it is not always best to indulge him in the use of much cold water, as it is too apt to chill the stomach, and thus sometimes to occasion cramp. Pennyroyal, or some other pleasant stimulating tea, should be drank in its stead. As a general thing it is well to exhibit, in connection with the emetic, some stimulants, such as capsicum or ginger.

SPECIAL EMETICS.

LOBELIA INFLATA.

Lobelia, Emetic Herb, Indian Tobacco, Puke Weed, &c.

Description.—The lobelia has a white fibrous root, and an upright pubescent stem, which is much branched about midway, and generally grows from one to two feet high. The branches and top have rather a conical form in their aggregate appearance. The leaves are from one to three inches long, lanceolate, but throwing the taper longest toward the top; they are serrate, acute, sessile, pubescent on both sides, and stand scattered on the branches and stem. The flowers are of a delicate blue color, numerous, disposed in leafy terminal racemes, and are supported on short axillary footstalks. The pod, which immediately follows the flower, is of an irregularly flattened oval form, inflated, striated, and crowned with a collar divided into five irregular segments, constituting the corolla. The seeds are very minute, many in number, are found loose in the capsules, and, when ripe, are of a brown color.

Locality and habits. — This valuable plant is indigenous to this country, and grows on every variety of soil; we frequently find it growing very plentifully in neglected fields, in pastures, woods, and even by the roadsides. In its wild or natural state, it is biennial, but by cultivation may be brought to maturity in one year. In its biennial habits it puts forth, in the first season, only a few radical leaves, about an inch in diameter, lying close to the ground. In the following season it shoots forth its stalk and branches, and commences flowering in July, and continues till late in the season. Some of the pods may be seen on the lower branches, fully developed, while the topmost branches and stem are in full bloom. The entire plant exudes, when broken or wounded, an acrid milky juice.

Preparation. — Every part of the plant is possessed of its valuable medicinal properties, but the seeds are most active. Lobelia should be collected as soon as its lower leaves begin to turn yellow; for at this time much of the seed is ripe, while the herb is likewise in a proper state for preservation. When gathered, the plant should be cut with care, so as to save the seed which lies loose in the open pod, and should then be dried on sheets, protected from moisture. When dry, the pods and leaves may be threshed off from the stem and separated from the latter, when the seed may again be procured separately by means of a fine sieve.

Lobelia yields its medicinal properties readily to water, alcohol, ether, and acetic acid.

The seed should be very finely pulverized, and kept in a dark glass or earthen jar. The dose of this is from five to fifteen grains. The herb is prepared and kept in a similar way. The dose of this is ten to twenty grains.

Tincture of Lobelia.—This is prepared either from the seed or herb; but that made from the former is the strongest. A pound of the fine powder is macerated in a gallon of alcohol for six days and filtered. The dose is from a tea spoonful to a table spoonful.

Acid, or Sour Tincture of Lobelia, is prepared in vinegar instead of alcohol. The dose is the same as that of the spirituous tincture.

Oxymel of Lobelia, is made by adding four pounds of strained honey to a gallon of the sour tincture, and then heating to a boiling point, skimming, and bottling up.

Medical properties and uses.—Lobelia is decidedly the most efficient, safe, and prompt emetic known; and, unlike the mineral emetics, does not inflame, corrode, or in any other way injure the stomach, in bringing about its specific effects. But of this article it may be emphatically said, that it operates in happy concert with the physiological laws. It is true, however, that much has been said and written against it, by the profession as well as the people; but this must reasonably be expected, as the article stands most prominent in the materia medica of the reformed system, which constitutes the most bold and successful innovation on the old and established practice ever known in the annals of medicine. In addition to its emetic properties, lobelia also possesses others, the effects of several of which, to some extent, are always developed on its exhibition; and in this, perhaps, the medicine possesses its greatest advantage over other emetics. Preceding its operation as an emetic, we discover the manifestation of a singular relaxing power, which admirably prepares the system for free and thorough emesis; and it is a rare circumstance when the emetic operates without the supervention of the most profuse diaphoresis. In this, therefore, the great objections to the exhibition of an emetic in cases of high fevers and congestion are obviated; and hence the lobelia emetic, when properly administered, become the most valuable remedy, even in high congestive as well as in any other fever; and may be used, moreover, with the rare but cheering prospect of cutting short the fever, even in the hight of the paroxysm.

Application. — This article may be used with safety, and certain prospect of advantage, in all cases in which an emetic is indicated; but is especially useful in *fevers* and *inflammatory* diseases. In these cases the medicine should be given, first, in under doses, so as to relax the body, when it may be pushed so as to produce emesis.

When a vomit is indicated in *asthma*, the lobelia answers a better purpose than any other article yet discovered. Its relaxant and expectorant properties, conjoined with the emetic, render it an excellent anti-asthmatic. This combination of agencies is what gives it its eminence in the treatment of *consumption*, *pleurisy*, *whooping cough*, *croup*, and all other pulmonary complaints in which an emetic is indicated.

While lobelia is most thorough in its operation, it is, perhaps, at the same time, one of the safest emetics known. This peculiarity in the medicine arises from the singular *combination* of agencies found in this article. Thus the conditions necessary to an easy operation are always brought about, and the system is well prepared by the medicine itself (*if properly administered*) before emesis takes place.

As the stimulating properties of the lobelia are extensively diffusive in their effects, it must be expected that the character of the attending symptoms, even when the medicine is administered in emetic doses, must vary, or at least correspond with the condition of the system before the medicine is administered. When there is much vascular obstruction, or nervous irritability, the operation of the medicine is frequently attended with a variety of singular but not always unpleasant symptoms, which are alarming to many who are unacquainted with the medicine. But the experienced physician does not regard those symptoms as particularly indicative of any unfavorable crisis, and when they occur endeavors to moderate them only to quiet the unnecessary fears of by-standers. These effects are described as follows, in *Howard's Botanic Medicine:*

"A diversity of symptoms attend the operation of lobelia emetics, evincing the magnitude of its powers, and the surprising energy of its operation on the human system, which often terrify those who are unacquainted with its superior and astonishing influence in arresting diseased action, and restoring health and harmony to the human machine. Its effects are different on different individuals, and on the same individuals at different times. Sometimes there will be severe pain in the stomach and bowels; strange, agitated, and indescribable, but not always unpleasant sensations. Convulsive breathing, like the sobbing of a child. General distress, or universal sickening feeling. Sometimes perfectly easy and quiet, without the power to move hand or foot, or even of rolling the eyeballs in their sockets; and at other times, great restlessness and anxiety, with symptoms of a most alarming character, prevail. In some instances the countenance becomes pale, and the skin cold, with the appearance of approaching death; while in others the countenance assumes a florid appearance, bearing the marks of health."

The duration of these symptoms varies according to circumstances, but they generally last from thirty minutes to one or two hours, but have been known to last much longer. When an emetic of lobelia is administered to persons inexperienced in its use, the physician should always be present at its exhibition; for it sometimes happens that persons, being alarmed at the appearance of some of these symptoms, send for another physician, who, perhaps, just arrives and administers some simple article, as these symptoms begin to decline, and the reaction takes place; and thus the latter physician, to the prejudice of the former, gains much applause, although he could not have prevented the results for which he receives this credit.

In addition to these properties already named, lobelia possesses a number of others, also of great value, which will be considered in their proper places.

When it is desired to avoid sickening and relaxation as much as may be, in administering a lobelia emetic, it is best to combine with it half as much ipecac and extract of bayberry.

It is best, as a general rule, to prepare lobelia emetics in astringent infusions, among the best of which is bayberry.

CEPHALIS IPECACUANHA.

Ipecac.

Description. — Root perennial, from four to six inches in length, annulated, simple, or dividing into several branches descending obliquely into the ground, sending forth occasionally a few fibrils: it is, when fresh, of a pale brown externally. The stem, sometimes partly under ground, is some two or three feet in length, somewhat shrubby, though slender, and seldom rises more than a foot from the ground. It is of a brown ash-color, smooth, pubescent near the top, procumbent and knotty, issuing small radicals from the knots. The leaves are opposite, petiolate, oblong, ovate, acute, entire, from three to four inches in length, found on the ends of the stem and branches, and of not more than four or six in number. The axilla is beset with deciduous stipules embracing the stem. The flowers are small and white; the fruit or berry, which is at first purple, turns almost black when ripe.

Locality and habits. — This ipecacuanha is a native of Brazil and New Grenada, delighting in thick and shady woods, and found in abundance in the valleys of the Granite mountains, in the province of Rio Janeiro, and Lucas mountains of New Grenada. It flowers in January and February, and the fruit ripens in May.

Medical properties and uses. — This article ranks next to *lobelia* as an emetic: its operation, like the latter, is mild but certain, and may be employed in all cases in which an emetic is indicated. It likewise possesses diaphoretic, stimulant, and expectorant powers, and hence is perhaps the best substitute for lobelia, in all cases in which the latter is useful. Many physicians are in the habit of combining this article with lobelia when they wish to exhibit an emetic, and consider the practice an improvement. When it is desired to administer a vomit to a patient of relaxed habits, it is the best plan to use this compound, as it is not so apt to relax the patient as much as the lobelia does alone. By some, the ipecac is strongly recommended in dysentery and chronic diarrhœa.

The mode of its administration is that of the powder suspended in warm water. The dose is from twenty to thirty grains, given in three separate portions, ten to fifteen minutes apart.

EUPHORBIA IPECACUANHA.

Spurge Ipecacuanha.

Description.—There are several varieties of this species of plants, differing considerably, in the color as well as the shape of their leaves, which are found from the round to the lanceolate, or even the linear, and from green to crimson, and yet the difference is only that they are varieties of the same species, and are accordingly subdivided into 1, euphorbia cespitosa; 2, euphorbia prostrata; 3, euphorbia rotundifolia; 4, euphorbia lanceolata; 5, euphorbia uniflora, &c. The root is perennial, of a yellowish color, irregular and large; growing in the sand sometimes to the size of a man's wrist, and from four to eight feet in length. The stems are numerous, erect or procumbent, smooth, dichotomous, jointed at the forks, and of a red, pale green, or yellow color. The leaves are opposite, sessile, entire, smooth, and vary in shape and color; are small in the spring, but grow in size with the age of the plant.

Locality and habits.—This plant is indigenous to this country, growing in pine barrens and other sandy places in the Middle and Southern States, in some places in considerable abundance, especially along the sea-coast, in New Jersey and on the banks of the Delaware. It is in bloom from May to August.

Medical properties and uses.—The euphorbia ipecacuanha is a pretty good emetic, and acts with considerable certainty. Like many other articles of this class, it has also something of a cathartic effect. But as an emetic, the euphorbia ipecacuanha is not so good as the foreging, or cephalis ipecacuanha

ERYTHRONIUM AMERICANUM.

Snake Leaf, Adder's Tongue, Snow-Drop, Dog-Tooth, Violet, &c.

Description.—Root perennial, a solid pyriform bulb like all the lilies, and deep in the ground. It is white inside, and covered with a brown loose tunic, sheathing the base of the stem; fibres thick and short, inferior to the caudex. Stem partly under ground, white below, and greenish purple above the ground, and from five to ten inches long. The leaves, which are one or two in number, are lanceolate, smooth, sheathing at their base, and of a brownish green color, irregularly interspersed with darkish circular spots about a line in diameter. The flower is solitary, yellow, nodding; its petals lanceolate and reflected.

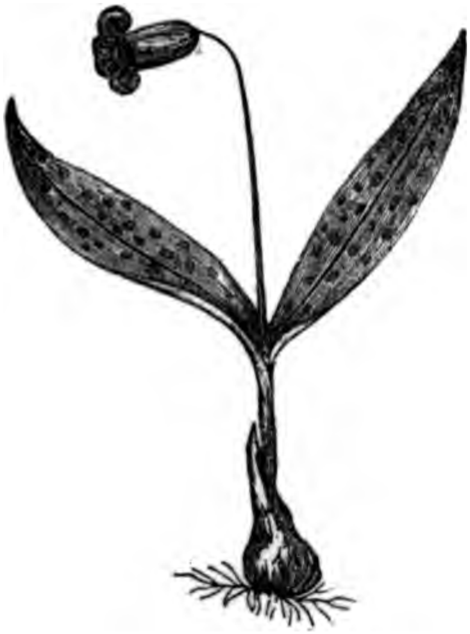
Locality and habits.—This beautiful plant is indigenous to this country, and grows in shady places, in meadows and low woods, throughout the Northern and Middle States. It flowers in the latter part of April and first of May.

Medical properties and uses.—The bulb of the root and the leaf, used in the recent or green state, is a very good emetic. Several of them should be mashed and infused in warm water, which may be drank at intervals of ten or fifteen minutes, until it operates. The whole plant is emollient, suppurative, and anti-scrofulous. Its properties are impaired by drying or boiling, and finally entirely destroyed, except as a nutritive, by age. This article is much valued by some as an emetic, and more so by others as an anti-scrofulous remedy. But as an emetic, it is far inferior to lobelia and ipecac; and is, moreover, much more inconvenient, as it must be used in its green state. For scrofula, and other ulcers, it is used in the form of a poultice.

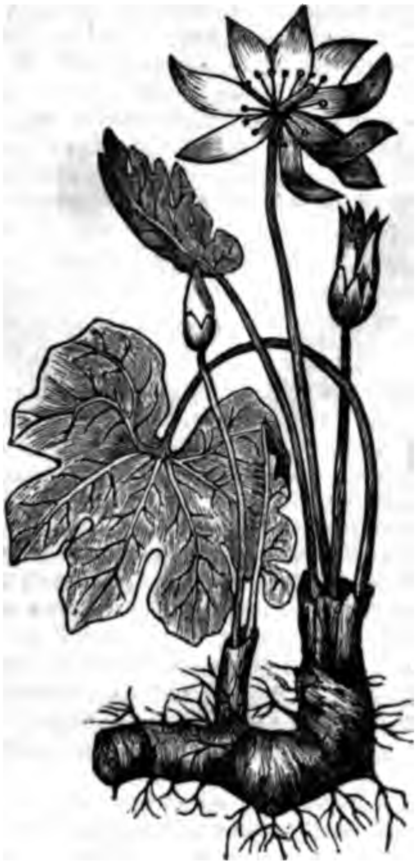
SANGUINARIA CANADENSIS.

Blood-root, Red Puccoon-root, Indian Paint, &c.

Description.—Root perennial, horizontal, fleshy, thick, and knobby, with some fibres. It is often contorted, is about the thickness of a finger, and from two to four



Erythronium Americanum, (Adder-tongue).



Sanguinaria Canadensis, (Blood-root).

inches in length. When broken or wounded, it pours out a beautiful red acrid juice, whence its name. The scape, and leaf stalks, which arise from the end of the root, are surrounded by the large sheaths of the bud. The leaf, beautifully enveloping the flower, rises about four to six inches high, when it expands into a large, cordate lobe, in shape like the *asarum canadense*, or colt's foot. It is smooth, yellowish green on the upper surface — paler, and well furnished with nerves underneath. Flower white, the petals of which are spreading, ovate, obtuse, and concave above. The plant comes up very early in the spring, and is in full bloom in a few days after it is up.

Locality and habits. — The *Blood-root* is indigenous to this country, growing very plentifully in woodland and new grounds of rich soil, in almost every state in the Union.

Medical properties and uses. — The root of this plant is emetic, in from ten to twenty grain doses of the powder. It is also cathartic, expectorant, escharotic, diaphoretic, and tonic. These other properties will be treated of in other places. It is almost too harsh to be used in large doses. Its application occurs in those cases, generally, in which other emetics are indicated. It has been found especially useful as an emetic in intermittents, remittents, jaundice, and continued fever.

In addition to the foregoing, there are many other articles which, although their most prominent properties are not emetic, will, nevertheless, act in this way when administered in large doses. These are:

1. THOROUGHWORT, (*eupatorium perfoliatum.*)—A strong decoction of the leaves and blossoms of this plant is emetic in wine glassful doses, taken once in ten to fifteen minutes. It produces free and copious vomiting and profuse perspiration, and is hence very good in fevers, catarrh and pneumonial affections.

2. VERVAIN, (*verbena hastata.*) — A strong decoction of the root and herb, is emetic, and very useful in intermittents, dyspepsia, &c.

3. Elder, (*sambucus canadensis.*)—A decoction of the inner bark and flowers, taken plentifully, acts as an emetic; and is good in dropsies and fevers.

4. Black Locust, (*robinia pseudacacia.*)—The inner bark of this tree possesses pretty active properties as an emetic, its operation being also generally prompt and mild. An ounce of the bark to a pint of boiling water, may be prepared and taken in reasonable doses, and at suitable intervals, until emesis takes place. It is recommended in the early stages of dysentery.

5. Blooming Spurge, (*euphorbia corollata.*)—From ten to fifteen grains of the corticle portion of the root, will operate as an emetic.; but it is rather harsh in its operation.

6. Leather-wood, (*dirca palustris.*)—The bark of the root of this article is recommended as a good emetic in asthma, and intermittents. The dose is from five to ten grains of the pulverized bark of the root.

7. Bayberry, (*myrica cerifera.*)—The extract or powder of the bark of the root, in large doses, is emetic, and is very good in cases of foul stomach.

8. Bitter Dogsbane, (*apocynum androsæmifolium.*)—From five to ten grains of the extract, or twenty to thirty grains of the bark of the root, acts mildly but certainly as an emetic, and is useful in fevers and dyspepsia.

9. Common Salt, (*sodii chloridum.*)—From one to three table spoonfuls, dissolved in warm water, and drank down, will operate speedily as an emetic, and is highly valued by some.

II. CATHARTICS.

Cathartics are agents which, in their action on the animal economy, have a specific tendency to evacuate the contents of the intestines downward, or which, when given in proper doses, will excite purging.

As the direction of the intestinal tube from the stomach down, is not in every part in a course so as to favor the exit of its contents by the laws of gravitation, it is evident that a power separate from this, must ever be exerted when the contents move forward in their course. This force is called the *peristaltic motion*. This action produces in the mean about one alvine evacuation per day. Constipation, therefore, is the result of a want of activity in this motion, or of mechanical resistance to it. The medical agencies that tend to increase the peristaltic motion, or remove its obstructions, are called cathartics. But this effect is not all that is involved in the operation of a good cathartic. The detraction of the serum and other humors; the diversion of the blood; the control of sympathy; the general relaxation of the system; the general excitation of the secretions, &c., are all effected or influenced to a considerable extent, by the operation of this class of medicaments.

We find by Strabo, that this class of remedies were much in use, even in the earliest days of medicine. Theut, the Egyptian Hermes or Mercury,—always regarded as the founder of medicine,—seems to have practised their use. Purges, vomits, and clysters, were used by the Egyptians for three days successively in every month. Besides the Egyptians, the Hebrews, Assyrians, Greeks, Romans, Persians, Chinese, Hindoos, and Arabians, all practised the use of cathartics.

But notwithstanding the popularity of cathartic remedies, there has ever been a diversity of opinion as to the propriety or even the *safety* of their use. While most persons consider our materia medica imperfect without them, others declare them useless, nay, *pernicious*, and in many instances, rapidly fatal in their effects. Nor have the reformers completely settled the controversy among themselves.

The noted Dr. Thomson, from his settled conviction of the deplorable imperfections and dangers of the popular practice, was, in his course of reform, led to guard well against the greater evils of that practice, and as this class of remedies, of all others, have been the most abused, he, in his zeal and enthusiasm, fell into error on the opposite extreme. Having had on his mind the purpose of an entire revolution in medicine, and being necessitated to frame his system without the advantages of even a good education, it is not at all strange that in some points he should deviate somewhat from a strictly philosophical course. There are still many in the ranks of reform who are quite ultra in their views on this matter; some declaring positively that no medicine of this class can ever be used without danger.

But the error on the other hand is no less marked; there are some who, without doubt, do much injury by their indiscriminate use of active, and too often poisonous cathartics. The *vis conservatrix* is but too often diverted by such interference from the fulfillment of better selected indications of cure; and thus by artificial intestinal irritation, the conservative powers are called, in numerous instances, from parts much exposed, and which, in consequence, are irreparably injured. Again, much purgation unquestionably produces direct debility of the digestive organs, causing dyspepsia and numerous other distressing evils. Instances not unfrequently occur in which the constitutions of patients are irretrievably destroyed by the improper use of cathartics. But does all this argue that catharsis is not a natural indication of cure? Does the abuse of an agent prove its uselessness? Catharsis is as certainly a true and natural indication of cure as emesis, diaphoresis, or any other; but it, like them, must be fulfilled in a proper way, and at a proper time. We must not condemn a medical agent, simply because given circumstances attending some of its applications are calculated to develop mischief. The question is, can such agents, under *proper* circumstances, be found useful, or beneficial?

To settle this matter in the present instance, two kinds of evidence may be brought to bear; first, that gained by induction from physiological facts;

and, secondly, that of our experience in the use of cathartics.

First, we discover that the respective functions of vascular parts of the animal body, are governed by a compound agency or sympathy evinced in the nervous system. We find that the sentient extremities of the nerves of these parts are peculiarly sensitive to certain stimuli; and thus the stimulus of the blood excites the regular contractions of the heart and arteries, thereby sustaining the circulation; the lacteals are peculiarly sensitive to the chyle, which excites the fulfillment of the normal functions of these organs. The urinary bladder and uterus answer their design in the economy of nature, by the influence of their peculiar exciting stimuli. The intestines, according to the same law, are controlled in their functions on the same principle. The bile in the normal condition seems to sustain the peristaltic motion; but we find it increased by excessive ingesta, by the presence of irritating and offensive substances in the bowels, and various other causes, so as to give rise to diarrhœa. The question now arises,—Is this a physiological, or is it a pathological action? This query is easily answered; and although this action is often involved in diseased movement, yet, perhaps in this, as well as in numerous other instances, it can be traced as the legitimate effect of the *vis vitæ*, in the fulfillment of true and important indications of cure. Thus, we discover that living tissues and organs, are not only supplied with means subservient to their physiological uses in the animal economy, but are capable of self-defense; and, moreover, of removing destructive agents from the system: and it is certain, that among the five grand means of the exit of extraneous matter from the system, viz: *diaphoresis*, *catharsis*, *emesis*, *diuresis*, and *expectoration*, or exhalation from the lungs, catharsis stands second in importance; the first being diaphoresis. Peccant matter, in the diseased condition of the body, passes from the bowels in every evacuation from these organs. The functions of the skin are no sooner disturbed than are the bowels found *vicariously* to fill the office of the cutaneous emunctories, the perspirable matter being taken up and conveyed directly to the bowels, and from thence expelled. The morbific accumulations that occur in the liver, are almost universally carried off by the bowels; and so are those, in many instances, that occur in the lungs. Even the urinary and uteral obstructions are sometimes relieved by increased intestinal action. Catharsis is one of the most common critical evacuations. How often it happens that our fevers end in spontaneous alvine evacuations. Nor is it less frequent that this indication is spontaneously answered in many other diseases.

In their organization, the relation existing between the intestines and the general vascular system, is of the most intimate character. When the bowels are full of nutritious matter, lymphatic absorption is active, and the arteries are rapidly supplied; but when food is sparingly taken, and the lacteals consequently inactive, we find that cutaneous absorption is much enhanced. When catharsis is instituted, the absorption from serous surfaces is always promoted in a corresponding ratio, and hence its utility in dropsies.

2. The evidence that we gain on any point by experience, is, however, much more satisfactory than any other kind; and in this is found the strongest argument in favor of the use of cathartic medicines. It happens sometimes in obstinate fevers, that the usual means of relaxing and evacuating the system by the use of nauseants, emetics, diaphoretics, and vapor baths, fail, and that in spite of them all the fever continues to rage, even after the exhibition of five or six courses of the medicines; and it almost seems sometimes as if the disease had gained violence, even from those powerful means themselves. In such cases, the symptoms are often found to yield in a remarkable manner, to the use of proper cathartics. In bilious fevers, it is frequently very difficult to succeed in the treatment without the use of this class of remedies. The author has a knowledge of various instances, in which patients have been well treated by the usual courses of emetics and vapor, together with the free use of enemas, and after the patient had been treated for a week or two according to the most rigid plan of application, he, instead of improving, gave evident signs of increasing danger. Under these circumstances, on the exhibition of a few small portions of *podophyllum peltatum* with capsicum,

after several evacuations of very fœtid and dark stools, the patient began manifestly to improve.

In those cases, it is evident that the hepatic derangement was alike beyond the reach of the emetics and enemas; and without doubt, the condition of the small intestines may do much to enhance the obstinacy of such fevers. Indeed, it is almost universally the case, that the obstinacy of these fevers arises in consequence of a local inflammatory action, and which too is frequently located in the *jejunum* and *ileum*, and thus often alike beyond the reach of emetics and enemas.

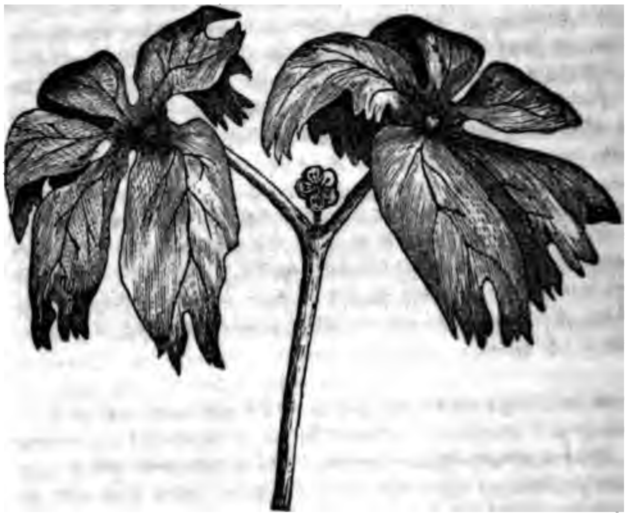
In dysenteries, cathartics are often of signal service. Astringents, and stimulating tonics, are generally used by those physicians who oppose the use of cathartics. But it is a fact, which is corroborated by the experience of every practitioner, that although the astringent plan is in many cases successful, yet in some it is not sufficient; and again in others, astringents alone extensively used are unsafe; for it often happens in these cases, that there may be excessive looseness, and violent tenesmus in the lower part of the bowels, while at the same time, there is constipation, or obstinate obstruction and consequent inflammation of the upper parts of the same. In such instances, therefore, there may be much injury done by instituting the use of astringents before the bowels are relieved from the constipation; for these medicines, instead of removing the dysentery in this case, spend their entire force on the parts already obstructed. Now, if a dose of *rhubarb* were first given, the astringents might have been used, not only with impunity, but advantage. Nor are the mischievous consequences of the common practice of giving astringents alone in cases of dysentery, *confined* to those peculiarities already named; for as there is always in dysentery a vast accumulation of morbific and offensive matter, it is not best to stop the looseness, and contract the bowels, before cleansing them. This, in many instances, may be done by the use of enemas; but in some cases, purgatives are indispensable.

Even in the extreme debility of typhus fever, instead of cathartics increasing the prostration, in some instances the patient has been known apparently, or in fact, to have gained strength from their continued use. This is indeed reasonable when the various conditions necessary to the development of animal force are considered. For while the absolute source of force is found in the change of the relation of elementary principles in the organism, this force can only be brought to bear on the muscular arrangement, by the agency of the nervous system. When therefore the functions of the nerves are obstructed, it is evident that debility must be one of its legitimate results. Thus, when the irritation caused by the characteristic morbific contents of the bowels in typhus is obviated or relieved, the debility will be remedied in a corresponding degree.

When poisonous substances are lodged in the intestines, it seems that the utility of cathartics can hardly be denied by any one.

It is, perhaps, unnecessary to particularize farther on this point. But lest the author should be misunderstood in his arguments in favor of this class of remedies, it may perhaps be necessary to be something more definite as to the extent to which cathartics should be used. It is important to remark, that with these, as in the use of every other active and potent article of the materia medica, particular attention is neccessary to the quantity and character of the medicine, as well as to the circumstances that may attend their use. Very active and violent purgation is not only unnecessary, but should ever be regarded as a pernicious practice. Laxatives and mild cathartics are all that may be necessary in this class, to the cure of disease; and there is perhaps more difference in mildness and efficiency between the numerous articles of this class, than any other.

Cathartics are particularly indicated in fevers of the continued and intermittent form, but in the eruptive fevers, they are generally injudicious. Inflammatory diseases also require purgatives, especially those of the gravior form. In jaundice, dysenteries, dropsies, and all cachectic diseases, such as scrofula, cancer, &c., it is very difficult to succeed well without them.



PODOPHYLLUM PELTATUM, (May-apple).

SPECIAL CATHARTICS.

PODOPHYLLUM PELTATUM.

Mandrake, May-Apple.

Description.—The root is perrenial, creeping usually several feet in length, jointed, round, brown without and white within, and about the thickness of a pipe-stem; the joints and under side of the root are beset with slender fibres. The stem is erect, round, smooth, about a foot in hight, and the bearing stalks divided at the top, bearing the flower and the fruit in the fork. The branches bear each of them a large peltate, palmate leaf, considerably lobed. The flower is nodding and white.

Locality and habits.—The May-apple is indigenous to this country, growing in a rich soil, in the woods, new grounds, and on the road side; but delighting most in moist and slightly shaded grounds. The flowers appear in May, whence one of its vulgar names, and the fruit ripens in August

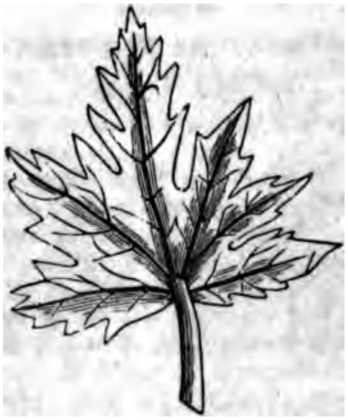
Medical properties and uses.—The root, properly prepared, is perhaps the best cathartic now known; being very mild, and although somewhat slow, yet certain in its operation. It is alterative in its effects, and seems to have a considerable tendency to the glandular system, especially to the liver, on which its effects are as thorough as dare be claimed for mercury; and yet it is perfectly safe, and not, like it, calculated to exhaust or pervert the tone of this organ, or of the system. In fevers, especially those of a bilious and intermittent character, and all scrofulous affections and diseases of the skin, it is of incomparable utility. It, unlike most other articles of this class, leaves the bowels in a lax and soluble condition, and hence is in many instances, very useful in habitual costiveness. It possesses also in some degree, a diuretic property; and is an excellent article in the cure of hydrocephalus, hydrothorax, and indeed in all other forms of dropsy. All will readily anticipate its usefulness in jaundice, and hypertrophy of the liver and spleen, so common in intermittents.

Dr. Bigelow, in speaking of this valuable article, says: "The medical properties of the podophyllum peltatum, are those of a sure and active cathartic; in which character it deserves a high rank among our indigenous productions. We have hardly any native plant which answers better the common purposes of jalap, aloes, and rhubarb."

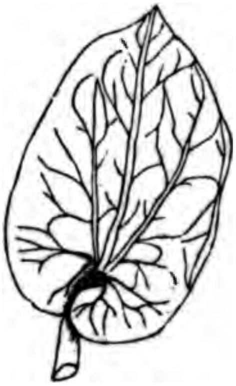
The leaves, stem and fresh shoots of the plant seem to be poisonous; and indeed the root itself, in its recent or green state, is very violent and dangerous in its effects. But in drying it, these violent properties are all dissipated, and the medicine, when prepared from the solid part of the root, scraped and well dried, and about a year old, is in its proper doses perfectly mild and harmless. The dose is from ten to twenty grains of the powder. But the alcoholic extract, or podophyllin, as it is usually called, is by far the best preparation of this article: this may be prepared by macerating the root in alcohol, filtering, and evaporating the spirit to the consistency of thin syrup, when the resinous portion or podophyllin may be precipitated by adding cold water. What falls down is to be washed, re-dried and bottled for use.

The alcohol may be saved for future use in its preparation, by employing a retort or still in the process; but the process must be conducted in a water bath, that is, the still must be placed in a kettle or boiler, or in a steam-pipe, to prevent burning the medicine when it is much reduced.

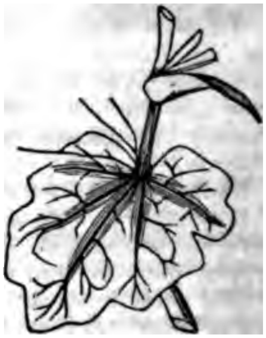
In this preparation we have at least the advantage of the smallness of the dose, if nothing more; but the medicine seems likewise to agree better with the stomach, when prepared in this way. The author had the honor of discovering and introducing this article to his medical class in 1849, and soon had the pleasure of seeing it in very extensive use.



Rheum Palmatum.



Rheum Emodi.



Rheum Compactum.

RHEUM.

(*Rhubarb.*)

Rhubarb has been in use for a long time, and still it has not yet been ascertained by the profession, what species of the *rheum* yields the officional rhubarb. The remoteness of the country where it is collected, and the jealous care by which the monopoly of the trade of this article is guarded, has been effectual in retaining the secret. There are several species now cultivated in this country. Dr. Pereira mentions thirteen species, viz: *Rheum palmatum*, *rheum undulatum*, *rheum compactum*, *rheum rhaponticum*, *rheum emodi*, *rheum crassinervium*, *rheum capsicum*, *rheum tataricum*, *rheum hybridum*, *rheum confluence*, *rheum fischeri*, *rheum barbandifolium*, and *rheum bullatum;* the specimens of which were in his possession. Besides these we have accounts of several others, such as the *rheum australa*, *rheum lucorrizon*, *rheum webbianum*, *rheum spiciforme*, and *rheum moorcroftianum*.

There are, however, but few varieties of the article now in common use; these are articles of commerce, and are bought under the names of 1, *Chinese rhubarb;* 2, *Russian rhubarb;* 3, *European rhubarb*. Of these, the Russian, which is sometimes called Turkey rhubarb, (owing to the fact that it was formerly derived from the Turkish ports, whither it was brought from Tartary,) is entirely the best, and next to this, is the Chinese.

Rhubarb should always be purchased in the root, and that selected which possesses an agreeable aromatic odor, and is heaviest, of a lively color, and which when broken presents a fresh appearance, with red and yellowish veins intermingled with white, and which also has a bitter astringent taste, staining the saliva of a deep yellow when chewed.

Medical properties and uses.—Rhubarb is one of our most valuable medicines: in it we find a singular combination of two properties, which in their effects are of an opposite character, the cathartic and the astringent. But when the medicine is taken, these properties do not exhibit their several effects at the same time; the cathartic power is always exhausted before the other takes a permanent effect. This circumstance is what so eminently adapts this medicine to the treatment of dysentery, cholera infantum and cholera morbus. Rhubarb is likewise very good in the diarrhœa that often attends dyspepsia, and the last stages of consumption. It is very mild in its operation as a cathartic, and is not apt to produce watery discharges, but rather such as are of a fæcal character.

Rhubarb is recommended by authors in cases of habitual constipation attending dyspepsia; but as will readily appear to any thinking individual, it certainly is illy adapted to such cases, in view of its astringent qualities, which always leave the bowels in a confined condition. It may however be relied upon in all cases in which a medicine of its character is indicated, as it is certain and mild, and unless given in over doses will always be agreeable to the stomach.

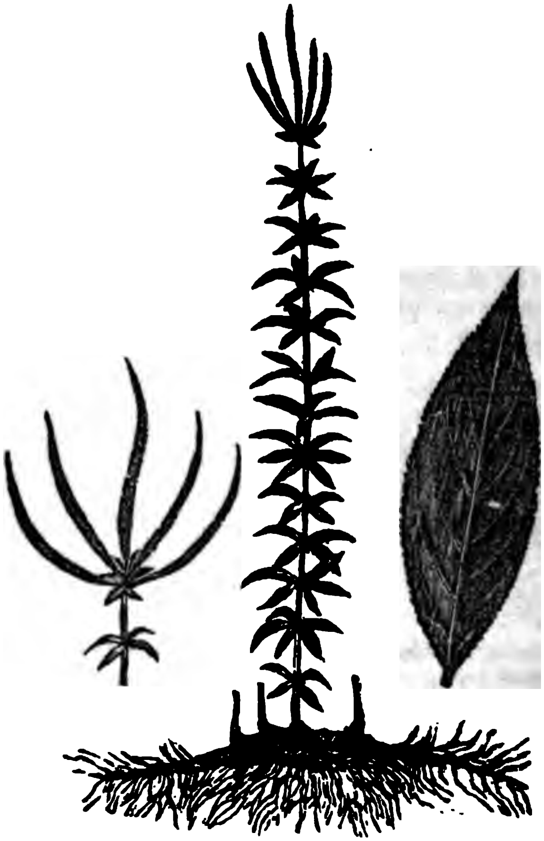
The medicine yields its properties most readily to water and wine. When, therefore, it is not given in substance, the infusion should be used. Its properties are not well adapted to extraction, as the dose of the extract must necessarily be half the size of that of the powders, which latter is from ten to twenty grains, or from one to two tea spoonfuls.

JUGLANS CINEREA.

Butternut, Oilnut, White Walnut.

Description.—The *white walnut* is an indigenous forest tree of considerable size. The young branches are of a whitish-gray color, whence the name, white walnut; are smooth, and in their situation incline to a horizontal position. The leaflets are long, lanceolate, serrate, and are pinnate, or arranged in pairs seven or eight in number, with a terminal one on the end of the petiole, like the *locust*. As this is a very common tree, further description is unnecessary.

Locality and habits.—This useful tree grows in every part of the United States, and Canadas; most abundant on rich lands. It flowers in May, and the fruit ripens in September.



Leptandria Virginica, (Black-root).

Medical properties and uses.—The extract made from the inner bark of the root and trunk of this tree, is an excellent cathartic, operating without pain or griping, and evacuating the alimentary canal without depletion. It has been used for a long time, and was highly recommended by Dr. Rush among the soldiers during the revolutionary war. The extract may be formed into pills with a small portion of *capsicum*, and used in all cases in which cathartics are indicated. The extract, when of the consistence of molasses, serves well as a material for forming *pill mass*, from dry articles.

The extract is made by boiling the bark in water, straining, and evaporating to the consistence of soft extracts.

LEPTANDRA VIRGINICA.

Black-root, Bowman-root, Brinton-root, Culver's Physic, &c.

Description.—Root perennial, long, woody, beset with numerous long slender fibres, of a blackish-brown color without. Stems several, upright, round, slightly pubescent, and from two to four feet high. The leaves are long, lanceolate, serrate, and are arranged in whorls around the stem, four to six at a joint; the joints are about a hand's-breadth apart. Flowers white, small, numerous, constituting from three to five terminal racemes.

Locality and habits.—The black-root is indigenous to this country, and is found throughout the Western and Middle States, growing on low grounds or moist places, in meadows, along fences, &c. It flowers in the latter part of July and first of August.

Medical properties and uses.—This is a pretty good cathartic, and operates with considerable certainty and mildness. It has been in high repute among the aborigines of this country, who used it in fevers and disorders of the stomach and bowels. As several of its vulgar names indicate, it has been a favorite of several individuals of the profession. It is spoken of in *Howard's Botanic Medicine*, as follows:

"The black-root is very highly celebrated by those best acquainted with its virtues and effects, as an efficient purge, operating with mildness and certainty, without producing that depression of the living powers, so common to other purgative medicines. In typhus and bilious fevers, it removes the black, tarry, morbific matter from the intestines, which it seems so necessary to be carried off by some means or other, and does it in a most natural manner, without weakening the tone of the bowels, or leaving behind it the poisonous sting so often remaining after the use of calomel, the most universal cathartic in fevers. The black-root is also a diaphoretic, antiseptic, and tonic. It may be taken in doses of a heaping tea spoonful, in half a gill of boiling water, sweetened if most agreeable, and repeated in three hours if it does not operate."

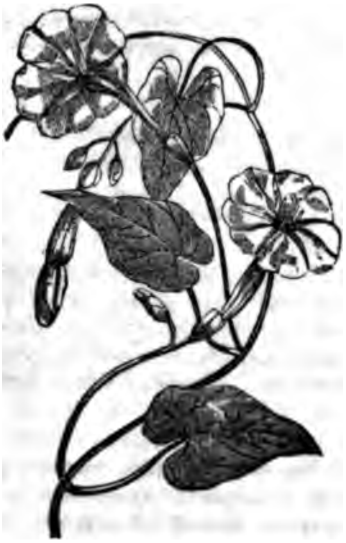
The extract (*leptandrin*) made as recommended for that of podophyllum, is much better than the powdered root. The dose of this is five grains.

IPOMÆA JALAPA.

(*Jalap.*)

Description.—Nuttall gives the following description of this article: "The root of this plant is a roundish, somewhat pear-shaped tuber, externally blackish, internally white, with long fibres proceeding from its lower part as well as from its upper root-stalks. A tuber produced by Dr. Coxe was, in its third year, between two and three inches in diameter. The stem is round, smooth, much disposed to twist, and rises to a considerable hight upon neighboring objects, about which it twines. The leaves are heart-shaped, entire, smooth, pointed; deeply sinuated at the base, prominently veined on their under surface, and supported upon long footstalks. The lower leaves are nearly hastate, or with diverging angular points. The flowers, which are large and of a lilac-purple color, stand upon peduncles about as long as the petioles. Each peduncle supports two, or more rarely, three flowers."

Locality and habits.—This plant is a native of Mexico, and derived its name from the city of Xalapa, in the State of Vera Cruz, on the neighboring mountains of which it grows sometimes at the hight of six thousand feet above the ocean.



Ipomæa Jalapa, (Jalap).

Medical properties and uses. — Jalap is an active cathartic, rather too harsh to be used alone, but may be profitably combined with other more mild articles. It is antibilious and hydragogue in its cathartic effects, and is particularly applicable in bilious fevers, dropsies, jaundice, &c. This is one of the most common articles of this class in use in the fashionable practice; it is commonly prescribed with calomel — thus "calomel and jalap" is a very fashionable compound. The dose is from twenty to forty grains of the powder, taken in two portions.

ALOE.

(*Aloes.*)

Description. — The perfoliate or socotrine aloes is among the most important species, and is described by Lindley as having a woody stem, straight, and naked below, considerably marked with the scars of leaves. Leaves amplexicaul, ascending, ensiform, green, curved inward at the point, convex below, rather concave above, marked with numerous small white marginal serratures — the parenchyma abounding in a bright brownish yellow juice. Raceme cylindrical, unbranched. Flowers scarlet at the base, pale in the middle, green at the point.

This is the kind of aloes commonly called *socotrine*, so designated from the name of an island lying in the Indian Ocean, from which the genuine drug is exported. But it is diffcult to get the genuine article, as its superiority gives occasion to the practice of fraud. It is justly said by Dr. Wood, that much of the aloes sold as socotrine, has never seen the island of Socotra, nor even the Indian seas. It has been customary to affix this title as a mark of superior value to those parcels of the drug, from whatever source they may have been derived, which have been prepared with unusual care, and are supposed to be of the best quality. Thus, both in Spain and the West Indies, the juice which is obtained without expression, and inspissated in the sun without artificial heat, has been called socotrine aloes.

Besides the *aloe perfoliata* or *socotrina*, we have other yielding species; *aloe spicata; aloe vulgaris; aloe* *arborescens; aloe commelyni*, and *aloe multiformis*, which are all natives of the Cape of Good Hope, and are commonly called Cafre aloes; and with these we have still others, viz: the Barbadoes, Indian, Mocha, and the Caballine.

The *Barbadoes*, commonly called *hepatic aloes*, from its resemblance to the color of the liver, comes to us in large gourd-shells, and is a pretty good kind, and when the socotrine cannot be procured this may be substituted for it.

India aloes is, perhaps, only an inferior article of the same kind as the *Barbadoes*. Of this there are however several varieties: 1, that of Northern India, which is of a dull black color, is brittle, and has but a faint odor; 2, that from Guzerat, which is more gummy in its appearance and feel, and is more difficult to fracture; 3, that from Salem, which is distinguished from the other varieties by the numerous large air cavities observed in the interior of the mass—its odor is similar to the socotrine; 4, that from Trichinopli, which resembles the Cafre aloes in bitterness, odor, and color, but is more opaque.

The *Mocha* aloes is a dirty mixture, which is of late imported from Muscat, in chests containing nearly two cwt. each.

The *Caballina* or horse aloes, in appearance resembles the hepatic in color and consistence, but has a very rank and unpleasant smell. It is often sold for hepatic aloes, but is much inferior to it, and is now not much used, except by farriers among horses.

In selecting aloes for medical use, that should be taken which has an agreeable aromatic smell, and a regular semi-transparent and shining appearance, and if it be soft it is no matter, but it should always be clean from foreign impurities. The best is always brought in skins and shells. The socotrine should always be preferred.

Medical properties and uses.—Aloes is a very certain but slow cathartic. Its stimulating and tonic properties are well calculated to sustain the system during the operation of the medicine. Like the bile, this article seems to have a specific tendency to excite the peristaltic motion, as it little affects the exhalent vessels; the discharges it produces being generally not very thin, but consisting chiefly of fæcal matter and other materials that may be found in the intestines at the time of its exhibition. It seems to act most prominently on the large intestines, sometimes giving rise to some irritation in these parts, and hence, when its use is long continued at a time, it has been known to produce piles. This effect, however, seldom arises from the use of the genuine socotrine aloes. A singularity about this medicine is, that an increase of quantity beyond the proper dose, does not seem to be attended with a corresponding increase of its action. Aloes also possesses an emenagogue power of considerable value.

The cases in which this medicine is most strongly indicated, are loss of appetite, dyspepsia, constipation, intermittents, and other fevers, amenorrhœa, intestinal worms, want of biliary secretion, &c. The dose is from three to eight grains, which will generally operate in from twelve to twenty-four hours. Its action can be somewhat quickened by using, with it, other articles of more activity. Owing to its extremely bitter taste, it is best administered in pill form: two pills will generally be sufficient for a dose.

RICINUS COMMUNIS.

Castor Oil Plant.

Description.—This plant, which is sometimes called *palma christi*, is a native of the Indies, where it grows sometimes to the hight of thirty to forty feet, but it is now cultivated in almost every part of the world. As cultivated in this country, it seldom grows larger than from five to ten feet in hight.

That cultivated in this country, will bear the following description:—The plant is of vigorous growth; stem erect, round, hollow, smooth, branching, and something of a purplish hue toward the top, somewhat resembling the *phytolacca decandra* or *poke*. The leaf is large, peltate, palmate, serrate, smooth, and of a bluish-green color. The flowers are monœcious and destitute of a corolla, constituting a knotty pyramidal terminal raceme. The pod is glucious, and of a roundish shape, having three projecting sides, and is covered with tough spines. It is divided into three cells, each containing a seed of the size of a grain of coffee, which produces the oil.

Castor oil is a medicine of great antiquity; it was used by Hippocrates and others of his day, and it is now one of the most common articles of the cathartic kind in use. Dr. Eberle states:—"Castor oil is very mild, unirritating, but a certain and prompt cathartic, procuring copious fæcal evacuations, without appearing to excite the intestinal emunctories, since it hardly ever occasions any very liquid or watery discharges. Where we wish simply to evacuate the contents of the bowels, or avoid costiveness, there is no article belonging to this class of remedies, so well adapted as castor oil, to answer our intentions. Independent of the mildness and completeness of its operation, it is less apt than any other cathartic to leave the bowels in a dry or costive condition."* It is very prompt and sure in its operation, generally operating in an hour, and sometimes sooner.

The chief use of this article as a medicine, is found in its adaptation to the removal from the intestines, of any irritating or offensive accumulations, or poison that may be taken, as it produces but little disturbance in any other part of the system, and is moreover very active in its effects. It serves as a medical vehicle in the use of the chenopodium anthelminticum or wormseed oil.

One of the greatest inconveniences in the use of this article, is the difficulty attending its administration, owing to its nauseous and disagreeable taste and smell, which to some is very disgusting. The best way to obviate this is to take it in a little wine, cider, or coffee. The dose is from a table spoonful to an ounce.

CASSIA.

Senna.

Description.—There are several species of the *cassia* that contribute in furnishing the drug of commerce. As we find the senna in market, it is named according to the country from whence it is brought; hence we have the *Alexandria*, the *Tripoli*, and the *India* senna.

The senna brought from Alexandria embraces some three or four species, the *C. acutifolia*, *C. obovata*, *C. cynanchum*, *C. oleæfolium*, and the *C. tephrosia apollinea.*

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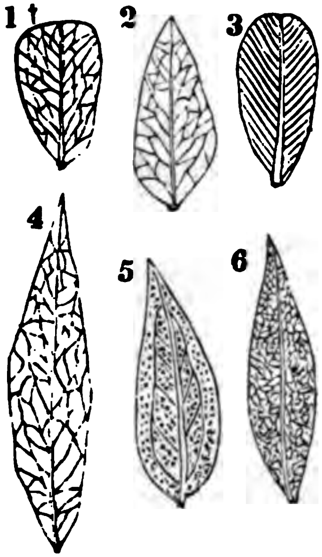
* *Therapeutics*, page 129.



Cassia, (Senna).

† Fig. 1, is a specimen leaf of the ovate leaved Alexandria senna. 2. Specimen of the acute variety of the same. 3. Specimen of the Tephrosia or silver leaved Alexandria senna. 4. Specimen of the India or Trinnevelly senna. 5. Specimen leaf of the Coriaria myrtifolia,—an article with which senna is sometimes adulterated. These are of a grayish-green color, and are tinged with blue. They have three parallel nerves, one prominent one in the centre, and one on each side between this and the edge or margin of the leaf. 6. A specimen leaf of the Cynancum oleæfolium or argel, a variety of the Alexandrian senna.

The Tripoli senna consists of only one species, the *C. Æthiopica.*

The India senna* consists chiefly of the *cassia elongata;* the leaves of which are much longer than either of the above named.

The Alexandria senna, until recently, has been considered the best for medical use. But a finer article of *India senna,* which is the production of Hindostan, and cultivated at Tinnevelly, is now brought to us, which is considered superior to all others. This article, in England, is known under the name *Tinnevelly senna,* and is there very highly esteemed.

Medical properties and uses.— Senna is a prompt and efficient cathartic, but is objectionable on the account of its tendency to produce griping and pain in its operation. This may, however, be obviated to some extent, by combining with it some aromatic, such as the fennel seed. It seems that the effects of senna are considerably improved by combination with bitters, and as the article is chiefly used among children, this hint may be improved upon by combining with it an equal quantity of *peach leaves,* whose properties are of known utility.

Senna is particularly useful in dropsical diseases, and as an ingredient in cathartic compounds, to quicken their operation. It is very convenient to be mixed with spigelia. The dose is from half a drachm to two drachms. When given by infusion, which is the best way, a half an ounce is scalded with an ounce of manna, and a drachm of fennel seed, to a half-pint of water. Take a third once in four hours, until it operates.

IRIS VERSICOLOR.

Blue Flag, Snake Lily, &c.

Description.— Root perennial, horizontal, fleshy, and fibrous. Stem two or three feet high, round on one side, acute on the other, and sometimes branched. Leaves sword-shaped, striated, sheathing at the bottom. Flowers from two to six in number, and of a blue color.

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* This article is produced in Arabia, and derives its name *India,* only from the route by which it reaches us.

Locality and habits. — This beautiful plant grows all over the United States, in low wet places, in meadows and borders of swamps. It flowers in June.

Medical properties and uses.—The blue flag is an active cathartic, and in over doses, is emetic; it is also diuretic. This medicine is too harsh for common use, but from its adaption to several obstinate diseases, it well merits a place in our *materia medica.* It is perhaps one of our best remedies in venereal affections; its action is searching, and powerful on the glandular system. It enters into and is the basis of Dr. Smith's anti-mercurial syrup, which is held in high estimation, by some, in mercurial and venereal affections. The medicine is also useful in dropsy, and in scrofulous complaints. It is highly recommended in colic, and also in liver complaints. The dose of the powdered root is from eight to fifteen grains; that of the extract, or *iridin,* one to three.

SAMBUCUS CANADENSIS.

Elder, Sweet Elder, Black Elder, &c.

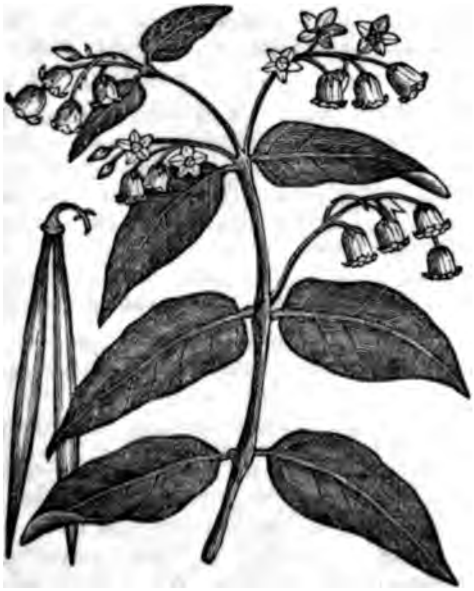
The elder is a very common indigenous shrub, and needs no further description.

Medical properties and uses. — The inner bark and young leaf buds are a pretty active cathartic of a hydragogue character; and being actively diuretic, are very good in dropsy. For this use, a handful is usually infused in a pint of cider, and drank at suitable intervals, in wine glassful doses. The bark is also sometimes made into an ointment, for cutaneous affections. The flowers are much used in families, for children, and the berries are recommended in rheumatism.

APOCYNUM ANDROSÆMIFOLIUM.

Bitter Dogsbane, Bitter-root, Wandering Milk-weed, Honey-bloom, Wild Buckwheat, Fly-trap, &c.

Description. — Root perennial, long, horizontal, creeping, having a thick fleshy bark, with a woody centre, and tasting at first somewhat like the root of the asclepius tuberosa, but afterward intensely bitter. Stem erect, smooth, and about two to four feet in



Apocynum Androsæmifolium, (Bitter-root).

hight. The leaves are opposite, petiolate, ovate, acute, entire, two or three inches long, and smooth. Flowers white, tinged with red, and disposed on loose nodding axillary racemes. Fruit, a pair of long slender and tapering folicles or pods, containing the seeds and seed-down. The whole plant when wounded exudes a milky juice.

Locality and habits.—The dogsbane grows most abundantly in low wettish or meadow lands, but is occasionally found on uplands. It is common throughout the United States. Its flowering time is in June and July.

Medical properties and uses.—The bark of the root is an excellent laxative, bitter tonic, strengthening the digestive organs, and regulating the bowels, and is highly useful in dyspepsia, liver complaints, intermittents, jaundice, &c. It is also useful in syphilis. The dose, as a laxative, is from ten to fifteen grains. In large doses it proves emetic, and actively cathartic. Age impairs its virtues.

AMYGDALUS PERSICA.

Peach Tree.

The peach tree needs no description.

Medical properties and uses.—The leaves, flowers, and buds of the peach tree, are cathartic or laxative, and tonic, and are much used in domestic practice, especially among children. They are good for worms, bowel complaints, loss of appetite, and constipation of the bowels. The fruit or peach, is boiled for convalescents as food; the juice is very good to keep the bowels open during recovery, and is excellent to promote the appetite of the sick. The kernels are a good tonic, in dyspepsia, and for a weak stomach and bowels.

An infusion of the leaves is very good for urinary difficulties, especially for inflammation of the bladder. Dr. Thompson esteemed the medical properties of the kernels very highly; they enter into his restorative syrup No. 5.

CONVOLVULUS PANDURATUS.

American Jalap, Man-root, Man-in-the-ground, Wild Potatoe, Wild Morning Glory, Cussander, &c.

Description.—Root perennial, very large, and in shape, of a fancied resemblance of a man, whence some of its names. It runs deep into the ground, growing larger as it descends, to sometimes two feet, when it again tapers off. The root is sometimes found eight to ten inches in diameter, and three feet in length. The stalk is a slender, herbacious, climbing vine, often from eight to twelve feet long. The leaves, which are situated alternately with long petoiles on the vine, are broad, heart-shaped at the base, entire, and of a deep green color. The flowers resemble the morning glory, are white at the border, but purplish-red at the base, and stand on long axillary peduncles.

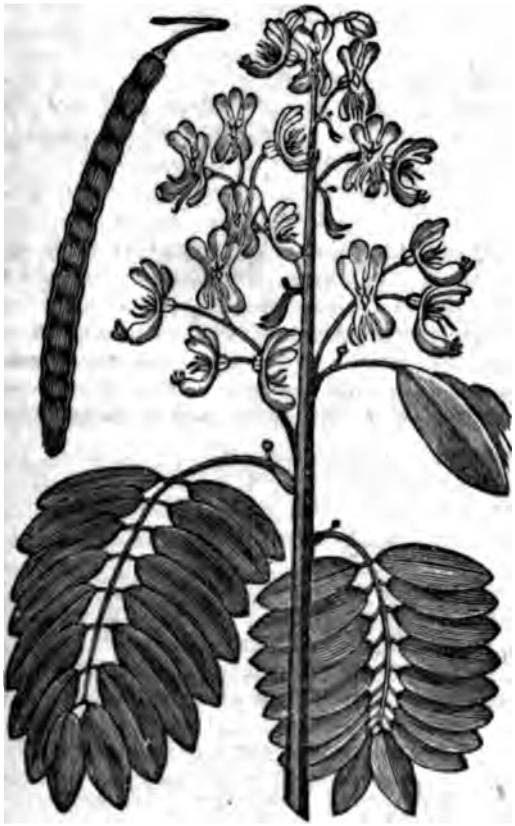
Locality and habits.—This plant grows throughout this country, in sandy grounds, along fences, and in pasture fields. It flowers from June to August.

Medical properties and uses.—The American jalap is mildly cathartic, diuretic, and tonic. Its laxative properties adapt it well to the relief of habitual costiveness, dyspepsia, liver complaints, &c. It is also very good in lung affections, being somewhat expectorant. It relieves whooping-cough and asthma, and has proved serviceable in consumption. The dose is from twenty to thirty grains of the powder, but is best used in extract, of which the dose is from five to ten grains. This article will cure the colt distemper among horses.

CASSIA MARYLANDICA.

American Senna, Locust Plant, Wild Senna.

Description.—Root perennial, woody, black, contorted, fibrous; stems many, upright, nearly smooth, cylindrical, from three to six feet high; leaves alternate pinnate, large, horizontal. Leaflets equally pinnate, numerous, smooth, green above, pale beneath. Flowers of a golden yellow, forming a panicle, composed of small axillary peduncles, bearing from five to fifteen flowers. Fruit consists of long pods containing seeds.



Cassia Marylandica, (American Senna).

Grows in rich soil, on bottom lands, in many parts of the United States.

Medical properties and uses.—The American senna has been employed as a substitute for the imported senna; but is inferior, being more nauseous and sickening than the latter. It may be taken by infusion with aromatics. A half-ounce of the leaflets may be infused in half a pint of hot water, adding a tea spoonful of essence of peppermint into it, and taken at two draughts an hour apart.

CASSIA CHAMÆCRISTA.

Prairie Senna.

This plant resembles the foregoing in its appearance, but is much smaller, and grows in prairies and hill sides. It is considered superior as a cathartic, to the *cassia Marylandica*. It is prepared and administered in like manner to it.

III. ANTHELMINTICS.

Anthelmintics are medicines which have the power either to destroy or expel worms, or prevent their generation in the intestinal canal. Some of these remedies act as poisons to the animals; others destroy them by mechanical action; and again others, by their purging power, simply expel them alive; and finally we find some, which, by their action on the system, so dispose the physiological condition of the parts infected with them, as to prevent their generation.

SPECIAL ANTHELMINTICS.

SPIGELIA MARYLANDICA.

Pink-root; Carolina Pink, Indian Pink.

Description.—Root perennial, yellow, and very fibrous. Stems, several to the root, simple, erect, foursided, and from a foot to a foot and a half in height. The leaves are opposite, sessile, ovate, lanceolate, entire, and smooth. The flowers are very handsome, of a bright scarlet outside, and yellow within; they are about an inch long, and have a tube swelled in the middle, and are disposed in terminal racemes.

Locality and habits.—The pink root grows plentifully in Maryland, the Carolinas, Kentucky, and Florida. It is found in rich soil on the borders of woods, and blossoms in June and July.

Medical properties and uses.—The root of this plant is a valuable vermifuge, but its anthelmintic properties seem best adapted to the expulsion of of the long round worm. Its effects are certain in this species of worms, which is the most common in this country; but it cannot be depended on, in the removal of any other kind. The medicine should be used for a day or two, in proper doses, and should then be followed by a brisk cathartic. The dose of the powdered root, for a child three or four years old, is from ten to twenty grains. For an adult, the dose is from one to two drachms, three times a day. The most common form of its use, however, is in the form of infusion. Half an ounce of the root, boiled in a pint of water for several hours, and given in doses of from a table spoonful to an ounce, to a child two or three years old, and for an adult, from a quart to half a pint is a proper dose. The medicine is sometimes given in connection with a cathartic; and for this purpose senna is most generally used, but the better way is to give the pink-root first and then the cathartic.

CHENOPODIUM ANTHELMINTICUM.

Wormseed, Jerusalem Oak, Goosefoot, &c.

Description.—The chenopodium anthelminticum is an indigenous perennial plant, with an herbaceous, erect, branching, furrowed stem, which grows from two to three feet high. The leaves are scattered, sessile, oblong, lanceolate, pointed at both ends, dentate, and prominently veined. The flowers are numerous, small, and of the same color with the leaves, or stems.

Locality and habits.—This plant is found in every part of this country, growing plentifully around dooryards, in old fields, and by the road sides. It flowers in June and July. The whole plant has a strong, peculiar scent, very offensive to some.

There is another species of the chenopodium, the ambrosioides, which very closely resembles this, but it does not grow so large, and may be known moreover, by the difference in the racemes, which, in the ambrosioides, is interspersed with small leaves. It is stated by Eberle, that the latter is nearly as good an anthelmintic as the former.

Medical properties and uses.—The wormseed, as it is commonly called, is one of our best anthelmintics. The oil, which is the usual form in which the medicine is used, may be given in doses of from three to eight drops to a child two or three years old. The dose should be repeated two or three times a day, for two days, when it should be followed by an active cathartic. For this purpose, castor oil is commonly used. Wormseed oil is often combined, by physicians, with castor oil, and put up in ounce phials, and sold as a popular vermifuge.

POLYPODIUM FELIX MAS.

Male Fern, Male Shield Fern, &c.

Description.—Root perennial, horizontal, fibrous, and is surrounded by the thickened bases of the curved footstalks, which overlap each other in their oblique position around the rhizoma. The footstalks or stipe, and mid-rid are covered with brownish, transparent scales. The frond or compound leaf is of an oval, lanceolate, acute, pinate form; the pinnæ or leaflets are situated remotely below, but stand nearer together toward the top, and at the summit seem crowded. They are lobed, and of an oval shape, and are the seat of fructification. The general aspect of this plant is much like that of all the ferns; it grows in tufts or bunches, and is found in pine woods, in New Jersey, and Virginia.

Medical properties and uses.—The male fern is actively anthelmintic, and has gained for itself a great character. It was used by Theophrastus and Galen, who prescribed it against tœnia and lumbicoides. The great secret purchased by Louis XV. of France,* from Madame Nuffer, consisted chiefly of this article. The medicine is now in considerable use among many physicians, and is generally regarded as a prompt and efficient vermifuge, especially in the removal of the tape worm. The dose of the powdered roots and radical portions of the stipes, is about three drachms, to be given in emulsion or electuary. The dose should be repeated morning and evening for several days, and then followed with a brisk cathartic.

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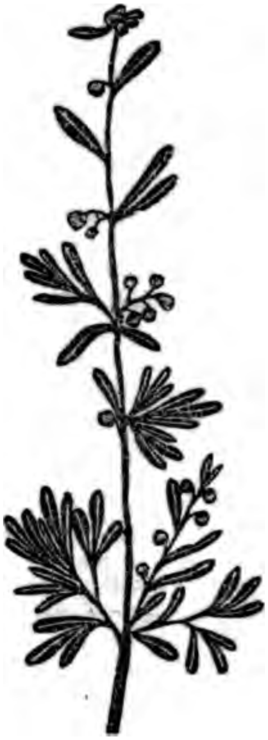
* The price paid for this nostrum was 18,000 francs.

PUNICA GRANATUM.

Pomegranate.

Description. — "The pomegranate is a small shrubby tree attaining, in favorable situations, the hight of twenty feet, with a very unequal trunk, and numerous branches, which sometimes bear thorns. The leaves are opposite, entire, oblong or lance-shaped, pointed at each end, smooth, shining, of a bright green color, and stand at the ends of the young branches. The petals are roundish and wrinkled, and are inserted into the upper part of the tube of the calyx, which is red, thick and fleshy. The fruit is a globular berry something larger than an orange, crowned with the calyx, covered with a reddish-yellow, thick, coriceous rind, and divided internally into many cells; which contain an acidulous pulp, and numerous oblong, angular seeds."

Locality and habits. — "This tree grows wild upon both shores of the Mediterranean, in Arabia, Persia, Bengal China, and Japan, has been introduced into the East and West Indies, and is cultivated in all civilized countries where the climate is sufficiently warm to allow the fruit to ripen. In higher latitudes, where it does not bear fruit, it is raised in gardens and hothouses for the beauty of its flowers, which become double and acquire increased splendor of coloring by cultivation. Doubts have been entertained as to its original country. The name of "Punicum Malum," applied by the ancients to its fruit, implies that it was abundant at an early age in the neighborhood of Carthage. The fruit of the pomegranate, for which the plant is cultivated in tropical climates, varies much in size and flavor. It is said to attain greater perfection in both these respects in the West Indies, than in its native country." — *United States' Dispensatory.*



Absinthium, (Wormwood).

Medical properties and uses. — The bark of the root of this tree is a very ancient remedy for the tape-worm, and it is now in extensive use as an anthelmintic, in Hindostan, Germany, Switzerland, and France. It may be administered in powder or decoction; the decoction is made by macerating two ounces of the bruised bark in a quart of water for some twenty-four hours, and then boiling down to a pint. The dose of this is a wine glassful, taken in from one to two or three hours, until the whole is taken. The dose of the powder is from one to two drachms, once in two hours, until five or six doses are taken. The medicine, when used as an anthelmintic, should always be followed on the second day, by a good dose of oil or mandrake.

The pomegranate bark is also astringent and tonic; and is classed among these by some writers.

ABSINTHIUM.

Wormwood.

Description. — The wormwood (*artemesia absinthium*) is a perennial plant, with branching, round, striated stems, some two feet high, and panicled at the top. The lower part of the stem is perennial and sends up annual shoots. The radical leaves are triply pinnatified, with lanceolate, obtuse, dentate divisions; those of the stem doubly or singly pinnatified, with narrow divisions. The floral leaves are lanceolate, and all are hoary. The flowers are of a brownish-yellow color, and stand nodding in erect racemes. The plant is a native of Europe, but is cultivated in our gardens.

Medical properties and uses. — The wormwood is a classical plant, and was used by the ancients. It is an excellent tonic, but is here introduced for its prophylactic power against worms. It must be taken every morning for one or two weeks, in doses of from five to ten grains of the powder. It has commonly been taken by infusion, but it is very disagreeable to the taste, and will do as well when taken in powder or pills.

LOBELIA CARDINALIS.

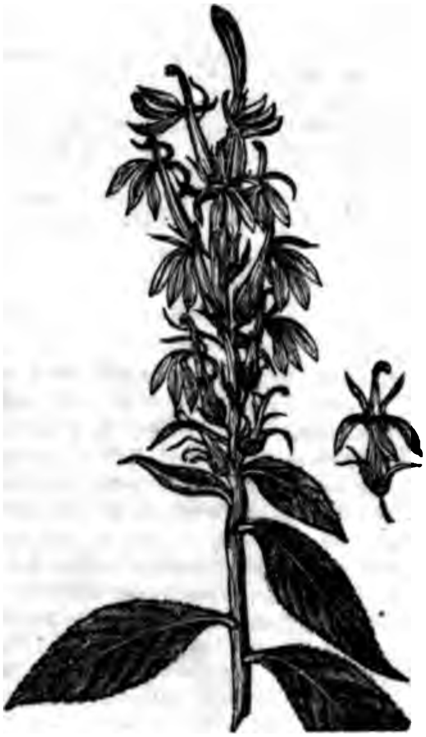
Red Lobelia; Cardinal Flower.

Description.—Root perennial, fibrous, whitish, of a nauseous and acrid taste, stem erect, pubescent, two to three feet high, with a terminal spike of brilliant scarlet flowers; leaves lanceolate, of a shining green color, serrate, subsessile. The flowering time is from July to September. Grows in meadows, along streams and in open woods in all parts of the country.

Medical properties and uses.—The lobelia cardinalis is anti-spasmodic and nervine, and is perhaps mostly employed in view of these virtues, but it is here introduced for its anthelmintic properties. Several physicians have reported very favorably of it as a remedy of this kind. It is said, moreover, that the Cherokee Indians employed it with success in the treatment of worm complaints. The medicine is taken in the form of a strong infusion, or in that of the powder, either alone or combined with other antelmintics. The dose is a wine glassful, three times a day, of the infusion, made by macerating half an ounce of the bruised root in a pint of boiling water; or a drachm of the powder taken in emulsion. It must be taken for three successive days, and then followed with a cathartic.

Pride of China, (*Melia Azedarach.*)—This beautiful tree, which is now cultivated in the southern part of our country, affords a very good medicine of the anthelmintic class. The fresh bark of the root, and the berries are the parts used. A handful of the bark is prepared in decoction, and given once in a few hours till it effects the bowels, or it may be given in proper doses several times a day, and then be followed with a cathartic. The medicine in large doses, is emetic and cathartic.

Cowhage, (*Dolichos Pruriens.*)—The hairs produced by the pods of this plant, are an excellent anthelmintic. Their operation is mechanical, destroying the animals by piercing them as with so many spears. They appear to be alike effectual in the removal of all kinds of



Lobelia Cardinalis, (Red Lobelia).

worms; and there seems to be no danger in their use, as the alimentary canal is completely protected against their harm, by the mucous membrane. The dose is a tea spoonful of molasses, thickened with those hairs, morning and evening, for three or four days, and then followed with a cathartic. The dose for an adult is a table spoonful of the compound, taken in the same manner.

OIL OF TURPENTINE, (*Oleum Terbinthinæ.*)—The oil or spirits of turpentine is actively anthelmintic, but the medicine is rather harsh, and should not be used while articles more mild and equally efficient are to be had. The dose of the oil as an anthelmintic is about a tea spoonful for an adult, but has been administered in much larger doses, even to the amount of one or two ounces, in some cases of tape-worm. When used, the medicine should be given at a single dose, and soon followed with a full dose of castor oil.

There are many other articles that are recommended as being good to destroy and expel worms. The cabbage-tree (*geoffræa inermis.*) Tartarian southern-wood (*artemisia santonica.*) Camphor; the bark of the yellow poplar (*lirioncndon tulipifera,*) &c., are all active anthelmintics, and have their advocates. But the best medicines against worms are the bitter tonics, which act by a double advantage. Bitters, while they are offensive to worms, are equally effectual in obviating that condition of the digestive organs which is favorable to their production. A persevering use of the bark of either of the poplars, chamomile, or almost any other bitter article will effectually protect the system against worms.

CHAPTER II.

MEDICINES AFFECTING MOST PROMINENTLY THE RESPIRATORY ORGANS.

I. EXPECTORANTS.

THESE are medicines which in their effects promote the bronchial secretions, and favor their exit from the system by expectoration. Their use in consumption, peripneumonia, whooping cough, asthma, croup, pleurisy, &c., is well known.

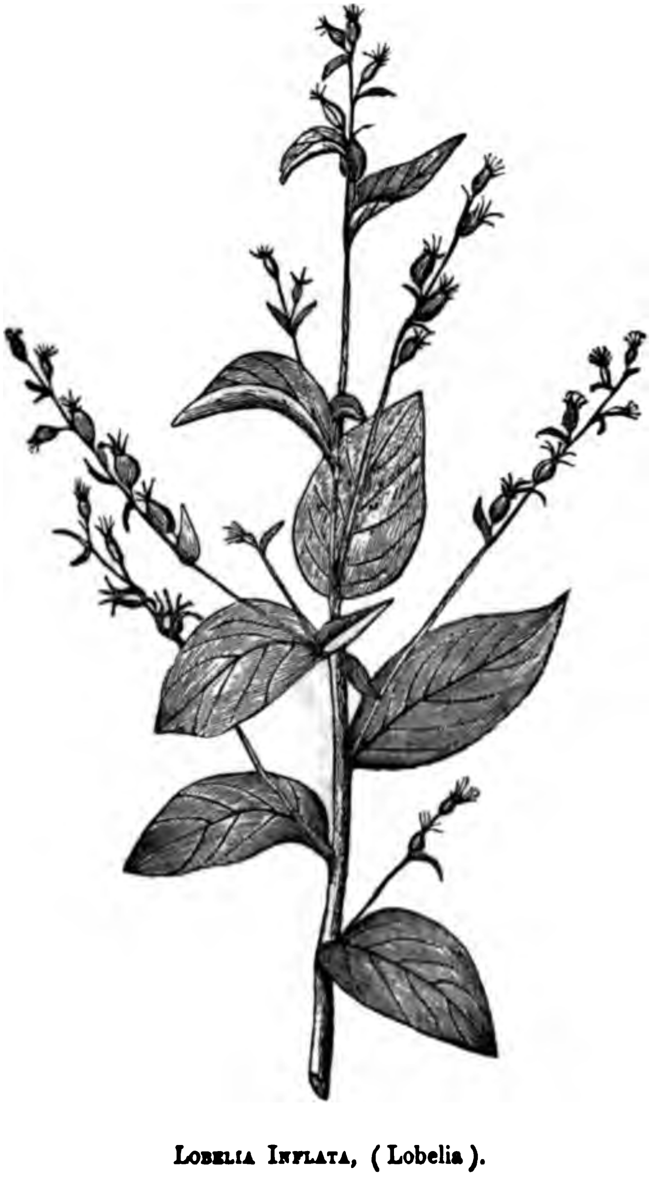
SPECIAL EXPECTORANTS.

LOBELIA.

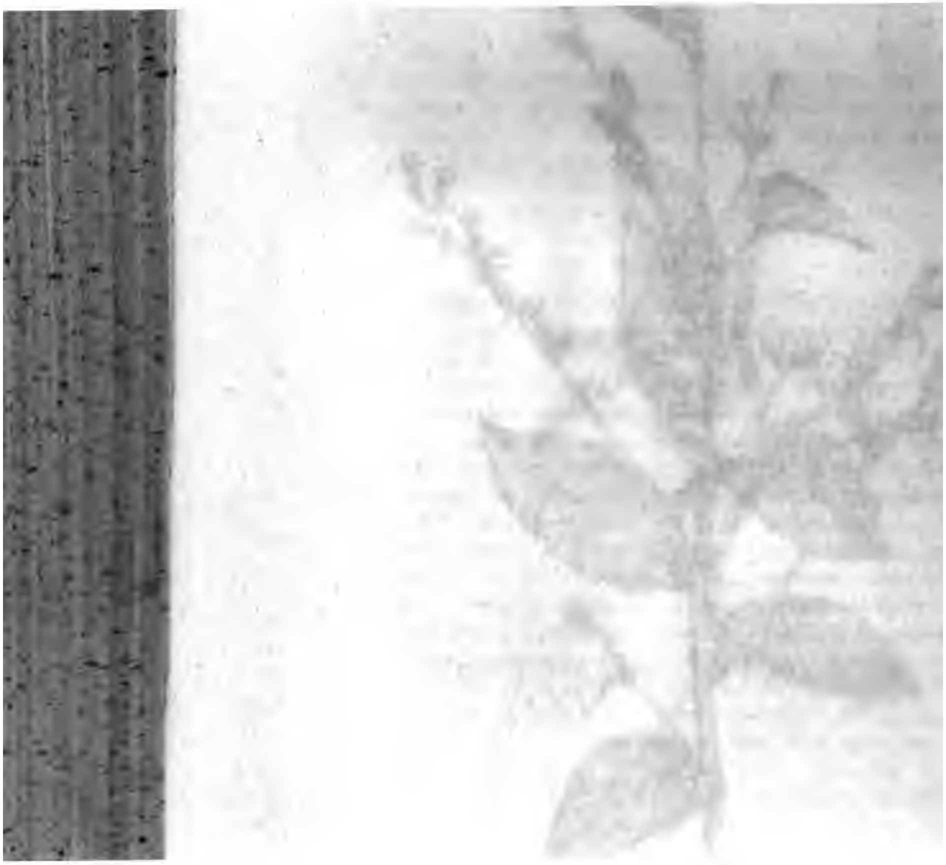
Lobelia, in addition to its valuable emetic and relaxant properties, also proves itself one of the best expectorants now known to the profession. Few cases occur in medical practice, in which this article will not fulfill the ordinary indications of the use of expectorants; and in difficult cases, there is perhaps no article that will answer a better purpose. The almost uncontrollable agency that this article possesses, in equalizing the circulation, makes it actively antiphlogistic, while its physiologically stimulating effects, are eminently calculated to sustain vitality. The medicine may therefore be exhibited in view of its expectorant powers, in either the sthenic (high) or asthenic (low) diathesis, (state of action,) without any of the apprehensions often betrayed by the friends of allopathy, in the use of stimulating remedies in fevers or inflammation. When in possession of the lobelia therefore, the physician, in contemplating the use of expectorants, in cases of inflammation of the lungs, pleurisy, asthma, &c., need not defer the administration until the inflammatory symptoms may have subsided, but he may proceed at once, and thus fulfill both indications.

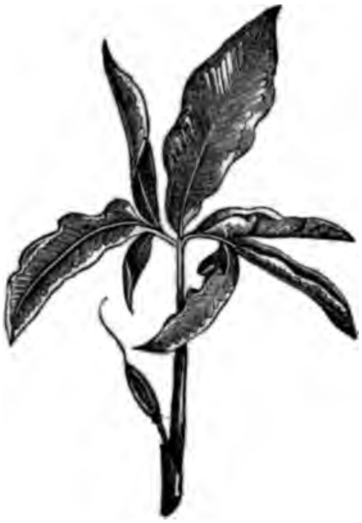
Lobelia may be safely employed in all cases in which expectorants are called for.

The oxymel is the most agreeable form to take the lobelia in, but the tincture is often used. The dose of

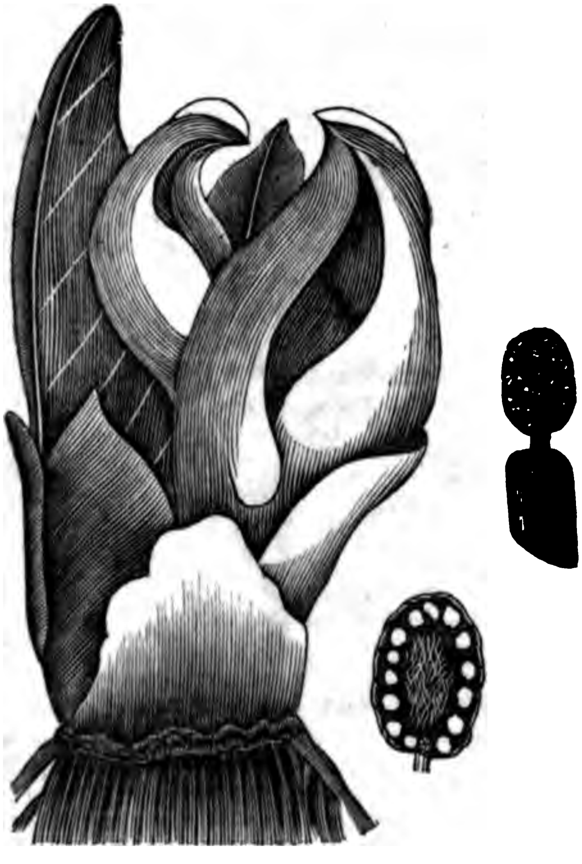


Lobelia Inflata, (Lobelia).





Arum Pollyphyllum, (Many-leaved Wild Turnip).



Ictodes Fœtida, (Swamp-Cabbage).

the oxymel is a tea spoonful; that of the tincture half as much.

ARUM TRIPHYLLUM.

Indian Turnip, Wild Turnip, Wake-Robin, &c.

Description. — Root perennial, bulbous, fibrous below. Early in the spring it puts forth a large, ovate, acuminate, variously colored spathe, convoluted at the bottom, flattened and bent over at the top like a hood, and supported by an erect, round, green or purplish scape. Within the spathe is the fructification, which, when mature, presents a bunch of beautiful scarlet berries, which remain after the other parts of the plant are decayed. The leaves consist of one or two triples, ovate, lanceolate, entire, standing on long sheathing footstalks.

Locality and habits. — This plant is a native of America, and is found throughout the United States, growing in damp woods, in meadows, and along fences.

Medical properties and uses. — The wild turnip, in its recently dried state, is actively expectorant, and very applicable in coughs, and all other cases in which an expectorant is indicated.

It is best given in honey or molasses, or something of the kind, as it is necessary to give it in substance, for it will not yield its active properties to alcohol, ether, water or oil. In its recent state, it is too acrid for internal use, but has in this state been found serviceable in whitloes, and other painful bealings, in the form of a poultice. It has also been found serviceable as an irritant when the fresh root, bruised, is applied to the surface, and may be employed as a revellent in inflammatory diseases.

The root, if entire, may be preserved in its green state for a year or more if buried in the sand, and kept in a cellar.

ICTODES FŒTIDA.

Swamp Cabbage, Skunk Cabbage, &c.

Description. — Root large, bulbous, and very thickly beset on all sides with long, large, fleshy fibres. The top of this plant consists of large radical leaves, somewhat similar to the common cabbage leaf, but of a deeper green color. Its appearance, when it emerges from the ground, is represented in the cut. The flowers are within the spathe, which they resemble in color. The seed, which is found at the base of the style, is of the size of a pea, and of a brown color.

Locality and habits. — This singular plant grows in most parts of the United States, in wet lands, swamps and meadows.

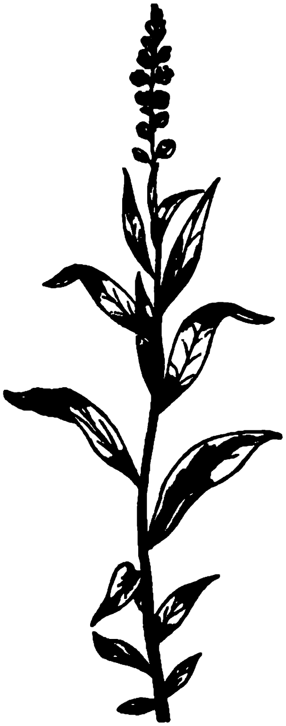
Medical properties and uses. — The skunk cabbage is a good expectorant, and is likewise anti-spasmodic and nervine. In catarrh, consumption, pleurisies, and especially in asthma, it will prove itself a very good remedy. The medicine should be used in substance. The dose of the powder is from a half to a whole teaspoonful two to three times a day, as an expectorant, and oftener as an anti-spasmodic. Age impairs its virtues.

POLYGALA SENEGA.

Seneka Snakeroot.

Description. — The root is perennial and branching giving rise to several erect, simple, smooth, round, leafy stems, from nine inches to a foot in hight. The stems are red, or purplish below, and green above. The leaves are alternate or scattered, lanceolate, smooth, and sessile, or arranged on the stem upon short footstalks. The flowers are white, small, and disposed in a close spike at the summit of the stem. This valuable herb grows in all parts of our country, but is most abundant in the South and West.

Medical properties and uses. — The seneka root is a stimulating expectorant, and is also diuretic, and emenagogue. Its expectorant powers are especially valuable in catarrh, croup, and asthma. Its pungent effect on the tongue is very lasting, and causes a free discharge of saliva. The medicine is used in powder and decoction. The dose of the former is from ten to twenty grains. A table spoonful of the coarse powder, scalded in a pint of water, and sweetened, is of proper strength: this is to be taken in table spoonful doses, often repeated.



Polygala Senega, (Seneca Snake-root).

There are several other articles that are highly esteemed as expectorants by some physicians, and perhaps merit a notice under this head.

LIQUORICE, (*Glycyrrhiza Glabra.*) — The root, or extract of this article, is a good expectorant, and is much used. The dose is from twenty to thirty grains, of either the powder or extract.

HOARHOUND, (*Marubium Vulgare.*) — This is a popular remedy for coughs, in domestic practice. The tops are generally combined with other articles of this kind, such as the spikenard, elecampane, skunk cabbage, wild turnip, &c., and formed into a syrup.

SPIKENARD, (*Aralia Racemosa.*) — The root, and berries, of this popular plant are very good in pectoral complaints; they relieve pain in the breast, and are healing to the lungs. This article is most commonly used in syrups with other articles.

PLEURISY-ROOT, (*Asclepias Tuberosa.*) — This article also seems to hold its rank among the expectorant remedies. It is very good in pleurisies, and hence its vulgar name. The usual form of its use is in decoction, or syrup, but the alcoholic extract is far preferable: the dose of this is five grains.

ELECAMPANE, (*Inula Helenium.*) — This is a balsamic expectorant, and is healing to the lungs. It is best suited to follow the use of the more active expectorants. It should not be employed in doses too large, as it is somewhat active in its effects. The dose of the powder is from ten to twenty grains. In decoction of an ounce of coarse powder to a pint of boiling water, the dose is from one to two fluid ounces.

WILD CHERRY, (*Prunus Virginiana.*) — The bark of this stately tree is an excellent remedy in coughs and consumption. It is anodyne and calms irritation, thus relieving that distressing hacking that often attends affections of the lungs. If there is any single article that will cure the consumption, it is this. The author has known confirmed lung difficulties removed simply by chewing the bark and swallowing the juice. It is a valuable remedy in syrups for all pulmonary affections.

Onion, (*Allium Cepa.*) — Onion juice is a popular remedy in domestic practice. It is used in croup, asthma, whooping cough, and all other lung affections. The allium sativum, or garlic, is of like properties, and is used in the same way.

CHAPTER III.

MEDICINES AFFECTING MOST PROMINENTLY THE FOLICULAR, OR GLANDULAR, AND EXCRETORY ORGANS.

I. ERRHINES.

These are a class of medicines designed for topical application, and are used as a snuff, which, when applied to the schneiderian membrane, promotes its secretions. On persons not accustomed to their use they excite sneezing. Many articles, under this definition, might be brought under this head, but the practical application of these remedies is confined but to a limited number. The object of their use embraces the cure of a few diseases of the head only. In cases of headache, toothache, earache, pain in the eyes, and rheumatic affections about the head, the use of errhines is sometimes advantageous. The mode of their operation is simple and very easily understood; the irritation that they produce on the schneiderian membrane, causes an afflux to this organ, thus relieving in neighboring parts the crowded or obstructed condition which is the cause of the pain experienced in them.

SPECIAL ERRHINES.

ASARUM EUROPEUM.

Asarabacca.

Description. — Root or rhizoma, perennial. Stem short, round, simple, herbaceous and pubescent. The leaves are opposite and stand on long footstalks; are kidney-shaped, entire, pubescent, and of a deep green color. The flower is large, of a dusky purple color, standing on a short terminal peduncle.

Locality and habits. — The asarabacca is a native of Europe, growing between thirty-seven and sixty degrees north latitude, in woods and shady places; it flowers in May.

Medical properties and uses. — This is a popular errhine, and produces a copious flow of mucus, which continues sometimes for several days. The root is rather severe, and hence the leaves, which are milder, are generally preferred. They are used in fine powder, in the form of a snuff, two or three times a day until relief is obtained. This snuff is good in a crowded state of the head attending catarrhs, &c.

NICOTINA TABACUM.

Tobacco.

Description. — The root is annual, white, woody, and branched. The stem is upright, tapering, woody; has a large pith, and grows from four to six feet high, with a branched top. The leaves, are very large below, but smaller higher up the stem; are alternate, sessile, smooth, entire, lanceolate and of a yellowish-green color. The flowers, which are situated on terminal panicles, are of a pale pink and white color. The corolla is bell shaped, having a border divided into five pointed segments.

Locality and habits. — The tobacco is a native of America, but is now cultivated in every part of the world. It is a staple article of Virginia, Kentucky, and Ohio.

Medical properties and uses. — This is a powerful errhine, but the patient is very apt to become accustomed to its use. As a snuff, this nauseous article has quite a large number of votaries, many of whom have become so habituated to its enslaving influence, that they reckon it among the luxuries of life. Nor is its use as a snuff, the only result of its intoxicating power.

Independent *man*, so fond of slavery, against his natural state, learns also to chew it. Nor do the more delicate of his species, the *women*, disdain the loathful habit; they smoke!—they snuff!—and perchance they chew tobacco! What strange infatuation! What apology is there for the habit? is the practice graceful? is it convenient? or is it conducive to health? Answer, thou tobacco slave, who hast but two humble zoonic brethren in its use.

Tobacco is a narcotic and sedative; its use is therefore injurious. It has however been much appreciated by many, for its relaxant powers. Its use as a relaxant, among Reformers, however, is entirely superseded by the lobelia. As an errhine, a small pinch of the powdered leaves may be taken three or four times a day, or oftener if necessary, until relief be obtained.

Bayberry, (*Myrica Cerifera.*)—This is a very good errhine, and may be used in combination with the powdered herb of lobelia.

Lobelia Inflata.—The powdered herb is good in catarrhal headache, and inflammation of the schneiderian membrane.

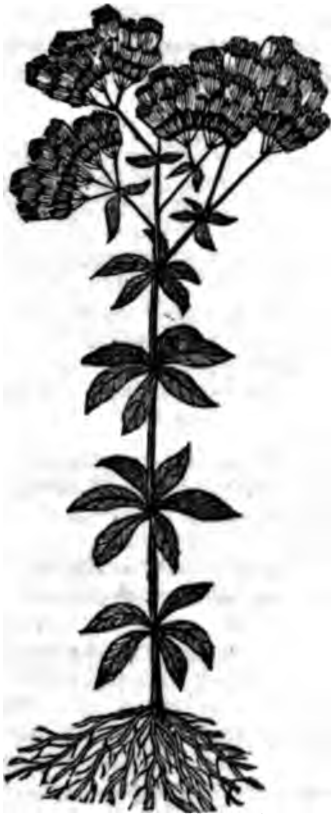
Wild Ginger, (*Asarum Canadensis.*)—The pulverized leaves are a very good errhine.

II. SIALAGOGUES.

These are medicines which act prominently on the salivary glands, producing free secretion and discharge of saliva. They are useful in fevers, and inflammations of the mouth, tongue, fauces, and throat, and afford great relief when the mouth is inclined to be dry and parched.

SPECIAL SIALAGOGUES.

Prickley Ash, (*Xanthoxylum Fraxineum.*)—The bark of the root of this article is an excellent sialagogue, producing copious discharges, which continue for many hours. It may be used in decoction, or the root may simply be chewed and retained in the mouth for a few



Eupatorium Pupureum, (Queen of the Meadow).

moments; or if chewing it is not convenient, the powder may be moistened and held in the mouth for a time.

Capsicum.—The tea or tincture of this valuable medicine is a very good sialagogue.

Lobelia Inflata.—All the preparations of lobelia are good sialagogues, and as such, may be used indiscriminately.

Aralia Spinasa, (*Southern Prickly-Ash.*)—This is an excellent sialagogue, and one of great permanence of effect.

III. DIURETICS.

Diuretics are medicines which are calculated to promote the urinary evacuations. Their use, in many cases, is of considerable importance, especially in urinary suppressions, gravel, dropsies, fevers, and viceral inflammations.

SPECIAL DIURETICS.

EUPATORIUM PURPUREUM.

Queen of the Meadow, Gravel Root.

Description.—Root perennial, horizontal, woody, with many long black fibres. Stem upright, smooth, cylindrical, purplish-green, hollow, and from three to five feet high. The leaves, which are situated on the stem in whorls of from three to six at a joint, are lanceolate, serrate, and about four to eight inches in length, and from one to two in width. The flowers are purple, small, and numerous, and are situated in beautiful umbils on the top of the stem and branches.

Locality and habits.—This useful plant grows in meadows, in other low grounds, and in woods that are not too much shaded. It flowers in July and August.

Medical properties and uses.—This species of the eupatorium is one of the most valuable diuretics known, operating with ease and promptness. It is singular that an article so valuable as this, should not be more spoken of in works on materia medica. In the majority of cases this article will give immediate relief in backache: and in dropsies, urinary suppressions, and gravel, it is perhaps inferior to no other simple article. It is generally used in decoction; an ounce of the coarsely powdered root scalded in a pint of boiling water, and drank in the course of two or three hours, is a proper portion.

JUNIPERUS COMMUNIS.

Juniper.

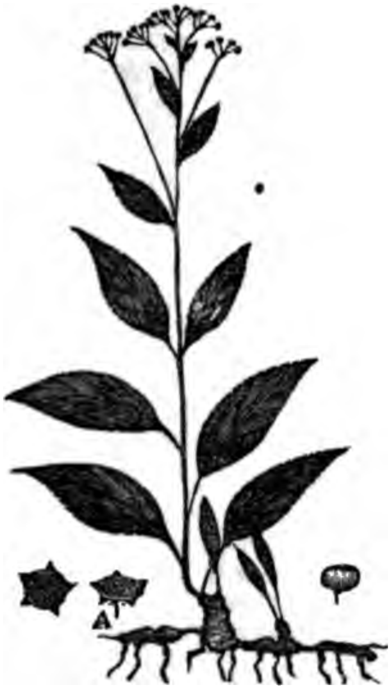
Description.— The juniper is a shrub, attaining sometimes to the hight of twelve to fifteen feet, with many branches. The leaves are evergreen, narrow, entire, sharply pointed, channeled, of a deep green color, and are attached to the stem or branches of trees. The flowers are axillary, sessile, small; the males discharging a copious amount of yellow pollen; females green, and on scaly stalks. This tree is a native of Europe, but has been introduced and is common in this country.

Medical properties and uses.— The berries and oil are actively diuretic. It is the oil of juniper that gives to gin its diuretic property. An ounce of the bruised berries may be scalded in a pint of boiling water, and drank in the course of a day, or the oil may be taken in doses of from one to three dozen drops. The juniper may be used in all cases in which a diuretic is indicated.

PARTHENIUM INTEGRIFOLIUM.

Nephritic Plant; Cutting Almond.

Description.—"Root very singular, issuing from a condex or head, at first small, but gradually enlarging until it terminates very abruptly, and then giving off other roots of the same or similar form; each portion forming a distinct root resembling in shape and size a young radish, but growing horizontally with the large end foremost, giving off a few fibrous roots and sending up stalks from near the large ends or bulbs of the principal roots, which are blackish outside, and bluish-gray within. Stems several arising from the same root, round, very hard, of a dark red color, growing



Parthenium Integrifolium, (Cutting Almond).

from eighteen inches to two feet high, branched toward the top; branches auxiliary to the leaves." Leaves, some of them radical or nearly so, the others, scattering and few, very obtusely dentate, eliptical; lower ones petiolate, upper ones subsessile, stiff and harsh, upper ones the smallest. Flowers terminal, cymous, orbicular.

Medical properties and uses.—The root of this plant is a valuable diuretic, especially useful in painful suppression, and scalding of the urine. In strangury, when the urine is obstructed, or discharged in very small quantity or drops, it has been known to be very serviceable. The medicine is generally employed in the recent state when practicable and may be sliced into cold water, and the infusion may be taken in quantities agreeable to the stomach at intervals of one or two hours.

APOCYNUM CANABINUM.

Indian Hemp.

Description.—The Indian hemp bears a very close resemblance to the bitter root (*apocynum androsæmifolium.*) The root, which is the part used for medical purposes, is about the thickness of a quill, and several feet in length. The stems are herbaceous, erect, branching, of a brown color, and from two to three feet high. The leaves, which are opposite, are oblong, ovate, pubescent, and acute at both ends. The flowers are small and numerous, and are disposed in panicles like those of the bitter root; they are of a greenish-yellow color without, and of a pink or purple within.

Locality and habits.—This article grows in meadows and other bottom lands, along fences, and the skirts of woods, found in most parts of the United States.

Medical properties and uses.—The Indian hemp is a very good diuretic; it is also diaphoretic, emetic, and cathartic Some Botanical physicians make much use of it in view of its diuretic properties. It is generally employed in decoction; a half an ounce of the root scalded in a pint of water, will be of suitable strength. This is to be drank through the course of a day.

CAPAIBA OFFICINALIS.

Copavia.

Description. — There are a number of species of the copaifera, that yield the balsam, but the *Capaiba officinalis*, described in the United States' Dispensatory, is considerable of a tree, growing in Venezuela, and the West Indies. The tree is of lofty growth, much branched, and has a heavy foliage. The balsam is obtained by making deep incisions into the stems, from which the pure balsam flows. It is thin and colorless when fresh, but acquires a thicker consistence, and yellow tinge, by age.

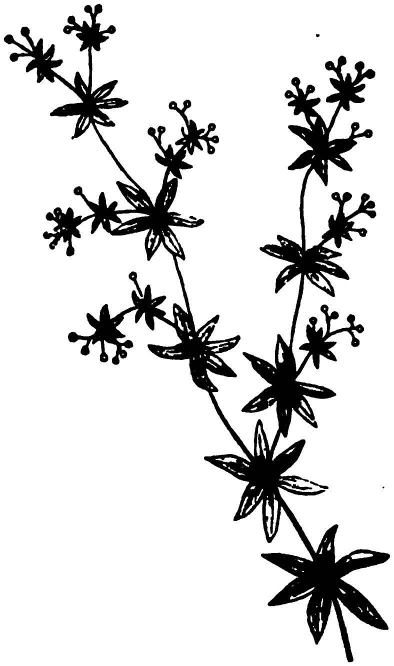
Medical properties and uses. — The balsam is diuretic, and gently stimulant, and laxative. As a diuretic, it is much in use in the treatment of urinary affections, and in gonorrhœa. But it is somewhat irritating in its effects on the urinary organs, especially if the use of the medicine is long continued. It is also considered valuable by some in affections of the lungs and trachea, and by others in dysentery, leucorrhœa, and for worms. The dose is from twenty drops to a tea spoonful three times a day.

TEREBINTHINA VULGARIS.

Turpentine.

Description. — There are various species of the pine that yield the turpentine of commerce. We have — 1, the *pinus palustris;* 2, the *pinus tæda;* 3, the *pinus sylvestris*, &c. The pines generally, are tall forest trees, growing on poor lands in the Eastern and Southern States. The leaves are evergreen, very narrow and long, and are generally in twains or threes, thickly set on the small twigs. The flowers or catkins, are a singular conical scaly arrangement, which hang on the ends of the twigs.

The oil or spirits is distilled from the turpentine, or resinous juice that is exuded from the tree. The pure oil of turpentine is perfectly limpid and colorless, of quite a strong penetrating odor, and pungent taste. In commerce and the mechanical arts it is generally called *spirits of turpentine.*



GALIUM APERINE [ASPERULA], (Clevers).

Medical properties and uses.—The oil of turpentine is stimulant, diuretic, diaphoretic, rubefacient, and anthelmintic. As a diuretic, it is very active and thorough, but is rather harsh. When long continued it is apt to irritate the urinary passages, and not unfrequently gives rise to violent strangury. The dose as a diuretic, is from ten to thirty drops, repeated every few hours. It is one of the most convenient and the cheapest of all the essential oils for use as a rubefacient, and hence forms one of the principal ingredients of the various stimulating liniments, or bathing drops.

LEONTODON TARAXACUM.

Dandelion.

Description.—The dandelion is an herbaceous plant, having a perennial fusiform, fibrous root, and many deeply toothed radical leaves. The flower, which is yellow, stands on a long hollow stem, and puts forth early in the spring; the whole plant, when wounded, emits a milky juice. It grows in meadows and pastures, all over the United States.

Medical properties and uses.—The root of this plant is a valuable diuretic, it is also tonic, pectoral, and alterative. This article is much used by the German physicians, and is undoubtedly one of our most valuable indigenous plants. But, like many other useful articles, it is neglected on account of its commonness. The medicine is considered serviceable in affections of the kidneys, spleen, liver and lungs; and has been found of benefit in many other glandular diseases. The dose is five to six grains of the extract, or a wine glassful of the strong decoction three or four times a day.

GALIUM ASPERULA.

Small Clivers, Goose-grass, &c.

Description.—This is a delicate herbaceous vine that grows many feet in length; and being extremely much branched, forms mats of various sizes, which are supported by bushes, fences, or anything that may chance to be within its reach. The leaves are small, numerous, lanceolate, linear, and are situated in whorls around the vine. They are beset with prickles, or teeth that project backward. The flowers are white, very small, and numerous.

Locality and habits.—Clevers is an indigenous plant, growing in meadows, along brooks, in new grounds, and in open moist woodlands.

Medical properties and uses.—This is a very good unirritating diuretic, operating with considerable promptness and certainty. It may be used in all cases in which diuretics are indicated.

There is another variety of clevers, called galium aperine, which is of larger growth, and is hence usually called large clevers, that is also a good diuretic.

When used the leaves and vines are generally prepared by infusing them in warm water, which may then be drank freely.

ASCLEPIAS FIBROSA.

Silk-weed, Fibrous Cotton-weed, Indian Hemp, &c.

Description.—The root is perennial, fibrous, white, and smooth. The stem is smooth, shining, branched on the top, and from two to three feet in hight. It has a very strong flaxy bark, whence it is sometimes called Indian hemp. The leaves are lanceolate, acute at both ends, smooth, entire, about an inch in width, and about three inches in length. At the top of the stem, they are usually joined at the base so as to form compound leaves of a triangular shape. The flowers, which in their organization resemble those of the asclepias generally, are found in bunches on the branches and top of the stem. They are of a dusky yellow color, and appear in July.

Locality and habits.—This species of the asclepias seems to delight in sandy bottoms, and banks of streams. It flourishes in most parts of the United States.

Medical properties and uses.—This article is quite a good diuretic, and may be employed with confidence in all cases in which medicines of this class are found useful. Considerable advantage may sometimes be gained by its use in fevers, and inflammation of the lungs and liver; and especially in cases of inflammation of the kidneys, bladder, and in gravel. It is chiefly used by infusion. A large table spoonful of the powdered root may be scalded in a pint of water, and drank in the course of three or four hours.

Bearberry, (*Uvæ Ursi.*) — The leaves of this article are valuable for their diuretic properties which are conjoined with a mild astringency, and hence the medicine is useful in leucorrhœa, catarrh of the bladder, &c. Dose, a tea spoonful of the tincture, or a wine glassful of the infusion.

Parsley, (*Apium Petroselinum.*) — The root of the common garden parsley, is a very good diuretic, useful in dropsies, gravel, affections of the kidneys, &c. It is prepared in strong infusion and drank freely.

Asparagus, (*Asparagus Officinalis.*) — The root of this well known garden vegetable, when prepared by infusing two ounces, in the green state, in a pint of cold water, and drank freely, is also a pretty good diuretic.

Elder, (*Sambucus Canadensis.*) — The inner bark of the common sweet elder is diuretic and cathartic, and as such, is valuable in dropsies, and kidney affections. It is boiled in cider and used in dropsical diseases.

Watermelon, (*Cucurbita Citrullus.*) — The seeds of this delicious production, as well as those of the pumpkin, cucumber, muskmelon, and gourd, are diuretic; and are much used in domestic practice, for strangury, inflammations of the urinary bladder, kidneys, &c. They are used in decoction, which should be drank freely.

Milkweed, (*Asclepias Syrica.*) — This article is also somewhat diuretic in its effects, and has been highly recommended in dropsy. It is used in strong infusion and taken freely.

Corn Snakeroot, (*Eryngium Aquaticum.*) — This is a perennial plant, growing some two feet in hight, with branches. Its leaves are long, resembling young corn leaves, and are thickly beset, along their edges, with spines or prickles. The flowers are disposed in globose heads. The root, which is tuberous in form, has an aromatic, bitter, pungent taste. It is diuretic, stimulant and expectorant, and is useful in dropsies, gravel, and kidney affections. It is also highly recommended, both as an external and internal remedy, in snake bites.

FLEABANE, (*Erigeron.*) — There are several species of erigeron that are possessed of nearly the same medicinal properties. They have been variously called, cocash, skevish, skabish, frost-weed, squaw-weed, field-weed, &c. They have a yellowish perennial root, and a round hairy stem, growing from three to four feet high. The leaves are long, lanceolate, and edged with hairs; the lower ones are toothed. The flowers are very small, white, numerous, and they are arranged in terminal peduncles.

These plants possess valuable diuretic, tonic, and somewhat astringent properties, particularly valuable in dropsies, kidney affections, chronic diarrhœa, suppression of urine, &c. The dose of the powdered root is from thirty to forty grains.

IV. ANTILITHICS.

Under this head it is designed to notice such articles as are known to have the power to alter the state of the urinary secretion, so as to prevent the formation of calculi, or to dissolve them when already formed. Their operation is entirely chemical. In their effects they disturb the chemical relation of the several elementary principles of which these distressing obstructions are constituted. They consist chiefly of acids and alkalies. The latter are employed in the lithic acid diathesis, and the former in the phosphatic.

SPECIAL ANTILITHICS.

CARBONAS SODÆ ET POTASSÆ.

Soda and Saleratus.

As the various urinary calculi are mostly composed of oxygen united with a base, either in the form of lithic acid, oxalate of lime, or cystic oxide, it is easy to discover the utility of such alkalines as soda and potash, in these difficulties. It is therefore unnecessary to refer to the amount of evidence that might here be adduced in their favor. But it should be borne in mind, that the potency of these agents is mostly evinced in preventing, or obviating the lithic or calculine diathesis, or in other words, in preventing the formation of calculi, while the elements are free; for it is known that when these formations exist, and the elements thereby rendered comparatively latent, that little can reasonably be expected from these remedies. The dose of these medicines, is from a half to one tea spoonful, dissolved in a half tea cupful of water, to be taken once or twice per day.

CITRIC ACID.

Citric acid is a common vegetable product, abounding in citrons or lemons. It, as well as other vegetable acids, are useful in urinary calculi composed of earthy phosphates.

Gravel-root, (*Eupatorium Purpurium.*) — This article is now gaining considerable reputation as a lithontriptic, and has, in the hands of the author, given more general satisfaction than any other article used by him for gravel. The most distressing symptoms have been known to yield to its use. The employment of the medicine should be commenced in small doses, and increased to as much as the stomach will bear.

Radish, (*Raphanus Sativus.*) — The juice of the garden radish is highly recommended as an agent to dissolve urinary calculi, — it is recommended that it should be injected into the bladder, as well as used per stomach. The dose is as much as the stomach will readily bear.

Honey, (*Mel.*) — This article is regarded by some as being very good to relieve the symptoms of gravel, and with this view, it may be used to sweeten other articles, less pleasant to take. Some affirm that honey will actually dissolve the stone in the bladder.

Carbonate of Magnesia, (*Magnesia Carbonas.*) — This article is a very good antilithic; it is perhaps more prompt in preventing an excess of uric acid, than any other of the alkalies. It certainly merits confidence, and should be used in all cases when the deposition is of the lithic kind. But in calcerous formations, this article, as well as the active alkalies, is perhaps of no use, nay, it is perhaps pernicious in its effects. In all cases in which the deposition consists of a yellowish brown pink or lateritious color, the alkalies are indicated. The white precipitates generally consist of earthy phosphates, or calcareous formations, in which the acids are perhaps most indicated.

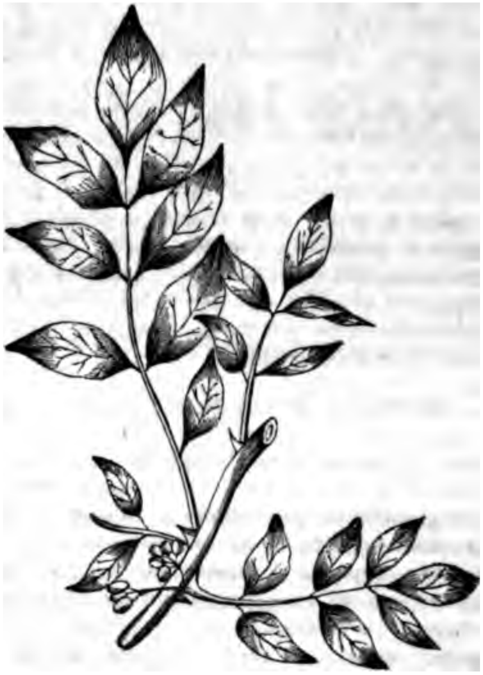
LIME-WATER, (*Aqua Calcis.*) — This is also a good antilithic, and may be used freely as such, when articles of this kind are indicated.

UVÆ URSI FOLIA, (*Bearberry.*) — This article has had its share of favor as a remedy in gravelly affections. De Haen, Farriar, and others, recommend it very much. The dose is from ten grains to a tea spoonful of the powdered leaves, three times a day.

V. DIAPHORETICS.

Diaphoretics are medicines which, in their action on the animal economy, increase the natural transpiration by the cuticular exhalants, or in other words, which promote perspiration.

By former usages this term expresses insensible perspiration only, and when sweating was spoken of, the term sudorific was employed. The convenience of the latter term in expressing degrees of the perspirating phenomenon, is such as still insures it a place in the medical vocabulary. Nevertheless, it is designed to notice under the above head, indiscriminately, such articles as are found most valuable in promoting general perspiration. As obstructed perspiration is characterized by various conditions of the body, it is obvious that a variety of articles may contribute in forming a proper list of these agents. In some instances, the obstruction may arise from a spasmodic constriction of the emunctories, while in others it may be dependent on languor of the circulation, or general debility. It is plain that in the former case, the relaxing diaphoretics



Xanthoxylum Fraxineum, (Prickly Ash) are indicated, and that in the latter, those of a stimulating character are best.

The diaphoretics are among the most valuable medicines that we possess, their usefulness being entirely equal to the importance of perspiration. Their application in fevers, and many other acute diseases, is almost indispensable, while in many chronic affections they are also often of great utility.

Although stimulants generally produce perspiration, yet the notion that no article or means but those that are very pungent to the taste, and which in their effects manifestly increase, in a corresponding degree, the action of the heart and arteries, can produce diaphoresis, is not only unreasonable and absurd, but its erroneousness is witnessed almost every day by all observers. A copious draught of any fluid will usually promote perspiration. Sometimes a simple drink of cold water will produce a copious sweat. Some of the mineral poisons, which manifestly *diminish* the action of the heart and arteries, are nevertheless, at the same time, diaphoretic; and as such, antimony and nitras potassa might here be named.

SPECIAL DIAPHORETICS.

Lobelia, capsicum, ginger, camphor, cloves, cinnamon, peppermint, and many other articles, whose most prominent properties give them a conspicuous place elsewhere, are among our best diaphoretics. Several of these form some of the chief ingredients of many of the most popular diaphoretic compounds, used by the Reformed practitioners. But, as the limits of this work will not admit of a separate notice of these articles in this place, it is thought proper to pass over them here, to consider those articles whose most prominent properties bring their consideration properly under this head.

XANTHOXYLUM FRAXINEUM.

Prickly-Ash.

Description.— The prickly-ash is an indigenous shrub, from five to ten feet in hight, and considerably branched The branches are beset with many strong, sharp, scattered prickles. The leaves are pinnate, with four or five pairs of leaflets, and one terminal one. The flowers are small, of a greenish color, and situated in bunches about the base of the young shoots. They are followed with greenish red berries, which burst in the fall, and present a round black oval seed. The prickly-ash grows all over this country, on rich bottom land, on the banks of streams, and on hill-sides.

Medical properties and uses.—The bark of the root of the prickly-ash is actively diaphoretic, and very permanent in its effects. The berries, which are more pleasant to the taste, are equally good. The root and berries when chewed impart a very pungent and acrid taste, which is quite lasting. Either, when chewed and held in the mouth, have been known to cure the toothache. The medicine has gained quite a character, for its effects in rheumatism. It is likewise very good in catarrhs, pleurisies, and viceral inflammations. As a diaphoretic, in fevers, and in many chronic affections, it holds a high rank. The medicine is generally taken in infusion; a half ounce of the powdered root, or as much of the berries, is scalded in a pint of water, and taken in wine glassful doses once in an hour or two.

ARALIA SPINOSA.

Angelica-tree; Toothache-tree; Southern Prickly-Ash.

Description.—This is an indigenous arborescent shrub, with an erect, simple stem from eight to twelve feet in hight; armed with prickles, and furnished near the top with very large bipinnate or tripinnate leaves, which are also prickly, and are composed of oval, pointed, slightly serrate leaflets. The flowers are arranged in an ample panicle, composed of numerous small hemispherical umbils bearing about thirty white flowers each.

Locality and habits.—The aralia spinosa is found wild in most of the Southern States, growing in low fertile woods, but is cultivated in the gardens north. It flowers in August and September.

Medical properties and uses.—The bark of this tree is one of our most valuable indigenous remedies; it is diaphoretic and stimulant, and is much employed in fevers, pleurisy, and viceral inflammations, rheumatism, colic, and gout. It is valuable in all cases in which a stimulating diaphoretic is indicated. It occasions a free flow of saliva, and will often cure toothache. The dose is from a half tea spoonful, to a tea spoonful of the powder, but it is usually taken by infusion.

EUPATORIUM PERFOLIATUM.

Thoroughwort; Boneset; Thoroughstem, &c.

Description. — The root of the thoroughwort is perennial, horizontal, crooked, with fibres. The stems, which are from one to a dozen in number, are erect, round, hairy, branched at the top, and from two to three feet high. The leaves are very peculiarly shaped; they may be considered opposite, with their broad bases joined around the stem, or the two may be considered as one leaf, perforated by the stem. They extend from three to four inches from the stem, and taper regularly from this into an acute point. Like the stem, they are thickly beset with fine white hairs, which give them, though of a deep green, a paler appearance. The flowers are small, numerous, whitish, and are arranged in clusters or corymbs on the top of the stems and branches.

Locality and habits. — Nearly all the varieties of the extensive genus to which this article belongs, delight in wettish rich soil, growing very plentifully in meadows, pasture grounds, along streams, and in open woodlands. The thoroughwort may be found, in favorable places, throughout the United States.

Medical properties and uses. — This article constitutes one of our surest and most permanent diaphoretics. In its action, in producing diaphoresis, it is very analogous to the lobelia inflata, producing nausea and general relaxation; and is hence of incalculable utility in the treatment of fevers, especially those occurring in the Western States. It is also actively tonic, and is therefore peculiarly applicable in intermittent, and bilious remittent fevers. The Indians of our country have used the thoroughwort in these, and many other varieties of disease, from time immemorial. They prepared it in decoction, and drank it freely before going into their baths.

For colds, and inflammatory affections of the organs of the chest, this forms an excellent remedy.

The thoroughwort infusion forms an invaluable relaxant enema, useful in all fevers and inflammations. In large doses the medicine proves emetic and cathartic.

The most common preparation of this article is the infusion; this is made by scalding an ounce of the leaves and flowers in a pint of water. The dose is a wine glassful once in an hour, unless it should sicken, when the dose is to be smaller. It is also prepared into pills from the extract with capsicum, which are taken as a diaphoretic and anti-dyspeptic, in doses of from two to four. The dose of the extract is from five to ten grains.

POLEMONIUM REPTANS.

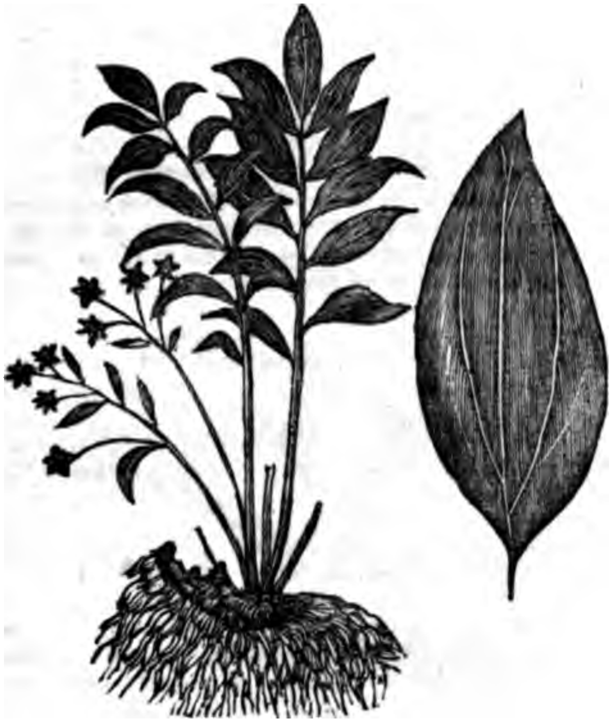
Greek Valerian, Sweat-root, Bluebells.

Description. — Root perennial, small, very fibrous, and white. Leaves pinnate like the locust, and situated on radical petioles or footstalks, about eight inches or a foot in hight. The flowers, which are small and of a beautiful blue color, are campanulate or bell-shaped, and disposed on separate, branched stems.

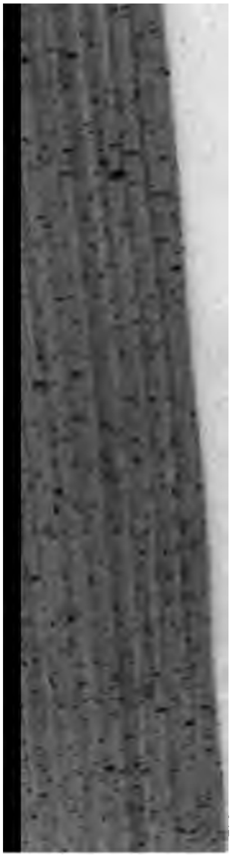
Locality and habits. — This is a very common indigenous plant, growing in meadows, low woodlands, along fences and road-sides. It flowers early in the spring.

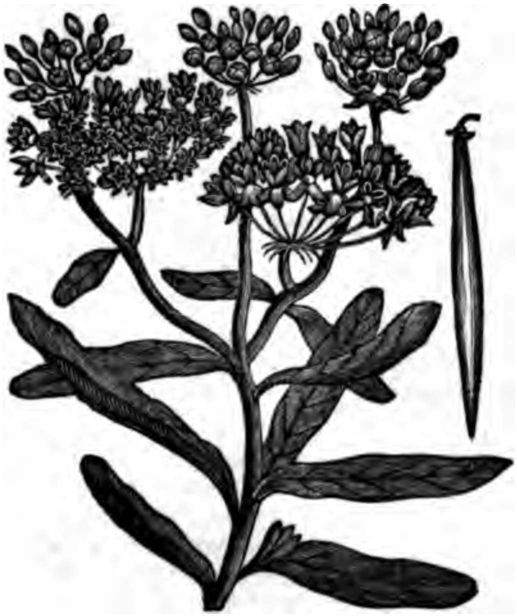
Medical properties and uses. — The Greek valerian is an active diaphoretic, producing copious and free perspiration. The medicine is applicable in all cases in which diaphoretics are indicated. It is one of the prominent ingredients in sudorific compounds.

Besides its diaphoretic properties, it possesses others that are much esteemed in consumption and other pectoral diseases. The dose of the powdered root, is a tea spoonful. The most common form in which it is used, is by infusion; a table spoonful of the root in coarse powder, is scalded in a pint of water, and drank freely.



Polemonium Reptans, (Greek Valerian).





Asclepias Tuberosa, (Pleurisy-root).

ASCLEPIAS TUBEROSA.

Pleurisy-root, White-root, Swallowwort, &c.

Description. — This species of asclepias has a large, tuberous, perennial root, which is branched, rough, and generally crooked. Within, it is white, but externally it is of a dirty yellow color. In the latter part of May it puts forth from one to a dozen or more stalks, which arrive at full growth in July. These are round, pubescent, or woolly, erect, or inclining, branched at the top, and about the thickness of the little finger. The leaves are oblong, lanceolate, thick or fleshy, entire, pubescent, pale underneath, green on the upper side, and stand alternately on the stem, and are scattered on the branches. The flowers, which are of a very beautiful orange yellow, are disposed in bunches or umbils on the tops of the stem and branches. The flowers are followed with oblong, pointed pods, which contain the seed and seed down.

Locality and habits. — This beautiful and valuable plant flourishes most on sandy and gravelly plains, in neglected fields, along fences, in orchards, and in pasture grounds. It blossoms in July.

Medical properties and uses. — The asclepias tuberosa is a mild but pretty certain diaphoretic, particularly useful in pleurisies, inflammation of the lungs, and other pectoral inflammatory diseases. It is an excellent article in hectic fevers attending consumption, and is also a good remedy in those coughs attended with a feverish condition of the body, that arise from colds. It promotes expectoration, equalizes the circulation, and sustains a moisture of the skin.

This article constitutes a valuable ingredient in diaphoretic compounds. The infusion is the most common form in which it is used. The extract, however, is quite preferable when the medicine is employed with other remedies that are taken by infusion. The infusion is prepared by scalding an ounce of the powdered root in a pint of water; this is to be drank freely, while other means are being used to promote perspiration.

This article forms a valuable ingredient in syrups, prepared for coughs and other pectoral diseases.

SANICULA MARYLANDICA.

Indian Sanicle, Black Snake-root.

Description.—Root perennial, fibrous, the older fibres black externally, the younger ones of a dirty white, or brown. The flower stem is erect, round, branched, and from six to sixteen inches in hight. The leaves are digitate, lanceolate, smooth, entire, serrate, and generally five at a whorl. The flowers are small, white, and disposed in clusters on the tops of the branches.

Locality and habits.—The sanicle abounds in low, moist and rich woodlands, in pasture grounds, along fences, and in new grounds. It is found in most parts of the United States.

Medical properties and uses.—This is a good diaphoretic; useful in malignant and protracted fevers. It sustains a gentle and permanent moisture of the surface. The medicine also quiets nervous irritation, expels flatus, and forms an excellent external application to snake bites, and other poisoned and angry wounds. The dose, as an internal remedy, is a tea spoonful of the powder. It is, however, more generally used in strong decoction.

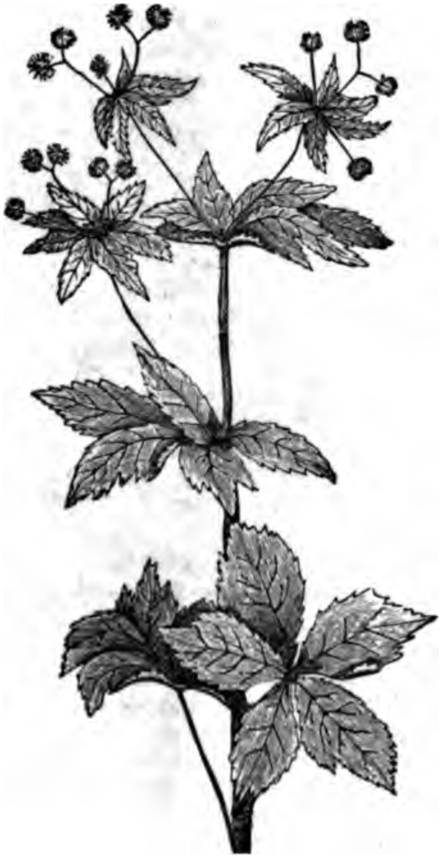
ANTHEMIS COTULA.

May-weed, Dog Fennel, Wild Chamomile, &c.

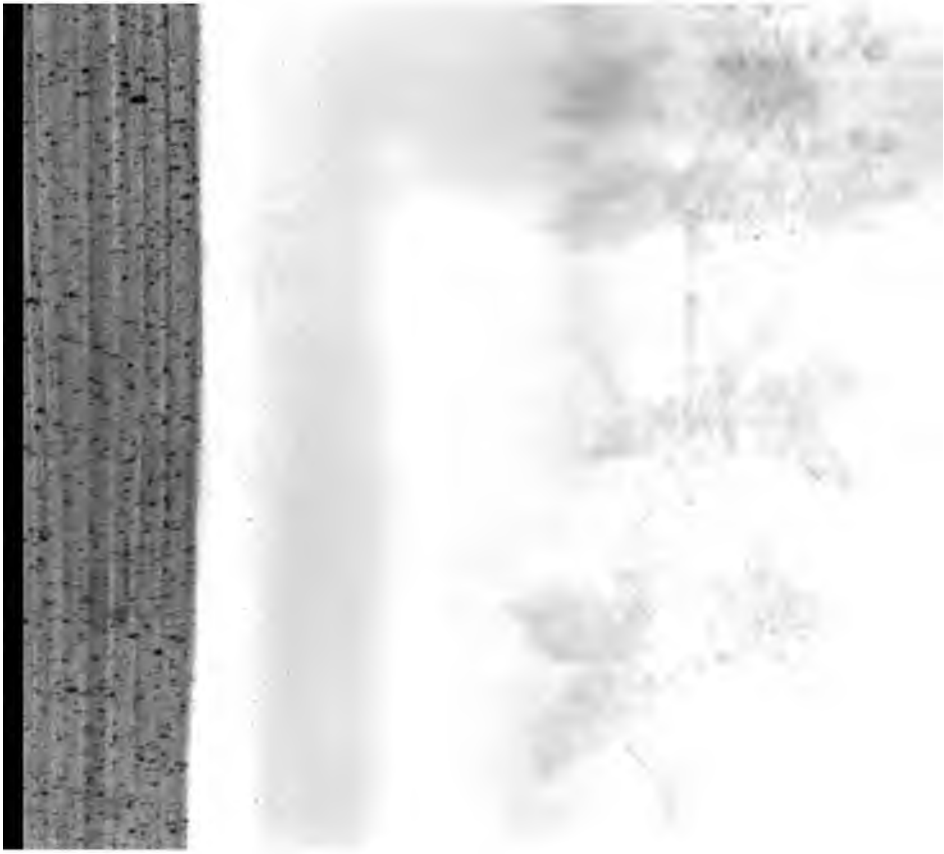
Description.—Root annual, crooked and fibrous; stem erect, striated and branched, from one to two feet high, and bearing alternate, sessile, flat, doubly pinnated, slightly hairy leaves, with pointed linear leaflets. The flowers, which stand alone upon the summits of the branches and stems, consist of a central, convex, yellow disk, with white radial florets, which stand out horizontally during the day, but incline their disk toward the stem at night.

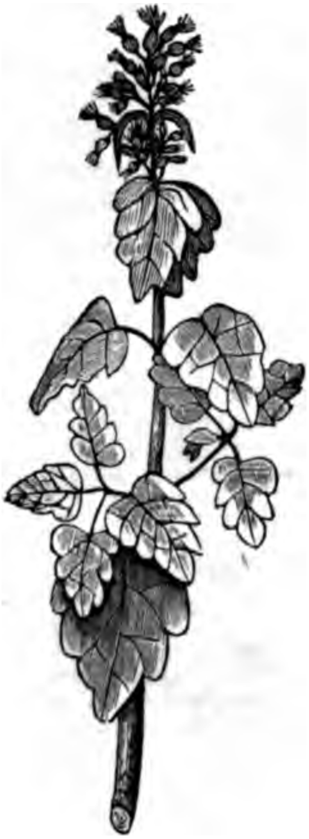
Locality and habits.—This plant is indigenous to this country, and is found in abundance all over the United States, growing by road-sides and in old fields.

Medical properties and uses.—The May-weed has been too much neglected by physicians, on account of its commonness. It is a valuable sudorific, stimulant,



Sanicula Marylandica, (Sanicle).





NEPETA CATARIA, (Cat-mint).

anodyne, emetic, &c., and is, consequently, useful in colds, asthma, dropsy, fevers, rheumatism, hysterics, epilepsy, &c. It forms one of the most valuable fomentations in the treatment of swellings, contusions, piles, hysteric fits, suffocations, &c. The fresh plant, bruised, or put into boiling water, or vinegar, and laid on the skin, will produce a permanent rubefacient effect. For internal use, it is commonly taken in infusion, prepared by steeping half an ounce of the powdered leaves in a pint of boiling water. This should be used freely. Drinking of the tea will greatly assist the operation of emetics.

HEDEOMA PULEGIOIDES.

Pennyroyal.

Description.—This indigenous annual plant grows to the hight of from eight inches to more than a foot. The root is small branched, fibrous and of a yellowish color. The stem is pubescent, and has numerous slender erect branches. The leaves are opposite, numerous, and nearly acute. The flowers are of a pale blue color, and are situated along the whole length of the branches. It has an agreeable aromatic smell, and a warm pungent taste.

Locality and habits.—This plant is abundant throughout the United States, and is found in dry soils, in pastures, and by road-sides.

Medical properties and uses.—This article is much used in domestic practice, where it is highly esteemed as a means of promoting perspiration. It removes female obstructions, relieves colds, &c. As a stimulant, its effects are diffusable, producing an agreeable sensation of warmth, and a healthy glow throughout the whole system. It is also valuable to facilitate the operation of emetics, and other medicines.

It may be used in infusion, tincture, or essence. The infusion, however, is preferable.

NEPETA CATARIA.

Catnip, Catmint.

Description.—This is a perennial, herbaceous plant, with a hoary, quadrangular, and branching stem, which grows frequently to the hight of three feet. The leaves are opposite, cordate, dentate, and pubescent; they are green above, but whitish on their under surface. The flowers, which are slightly purple, are arranged in terminal racemes, and appear in July and August.

Locality and habits.—This plant is found in abundance throughout the United States, growing in gardens, waste fields, along highways, and around old buildings.

Medical properties and uses.—The leaves of this plant form one of our most valuable diaphoretics, producing perspiration without augmenting the heat of the body, rendering it peculiarly adapted to the cure of febrile affections.

This plant is also valuable as a *carminative*, and nervine, and is highly recommended in female obstructions, hysterics, headache, worms, and spasms. It is useful in fomentations, and as an ingredient in poultices for swellings. An infusion of it forms an excellent injection for children in colic and restlessness.

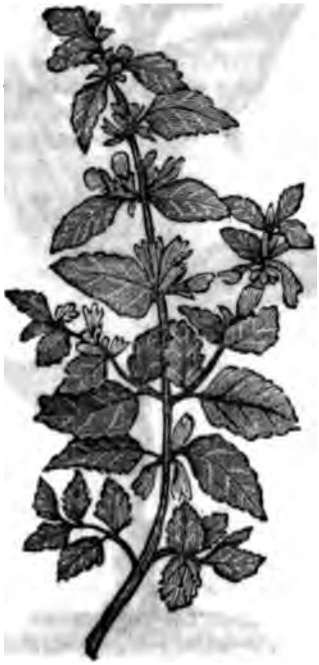
For internal use, it is employed in infusion; a handful should be infused in a pint of boiling water, and taken freely.

MELLISSA.

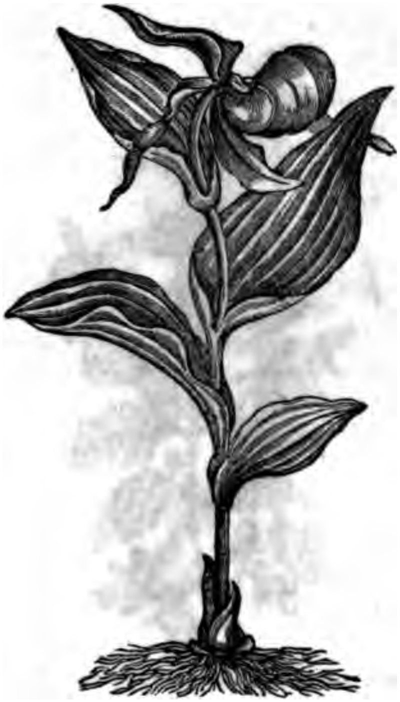
Balm.

Description.—A native of the south of Europe; cultivated in our gardens. It grows about a foot or more in hight; has a perennial root, upright and quadrangular branched stem. The leaves are opposite, ovate or cordate, deeply serrate, pubescent, the lower on long footstalks, the uppermost nearly sessile. The flowers are white or yellowish, upon short peduncles, and on axillary whorls half surrounding the stem.

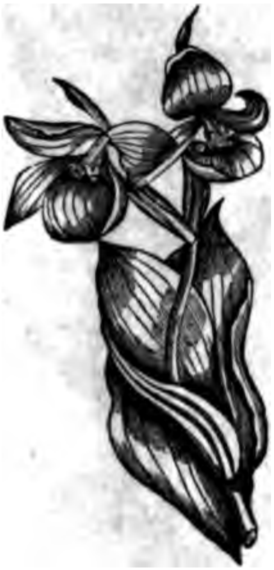
Medical properties and uses.—Balm affords a common domestic drink for the sick; but it is not active as a medicine; taken with diphoretics it promotes perspiration.



Melissa Officinalis, (Common Balm).



CYPRIPEDIUM PUBESCENS, (Lady's-slipper).



Cypropedium Spectabile, (White Lady's Slipper).

Cypripedium Humile, (Red Lady's-Slipper).

CHAPTER IV.

MEDICINES AFFECTING MOST PROMINENTLY THE NERVOUS SYSTEM.

I. NERVINE TONICS AND ANODYNES.

These are a class of medical agents that have a specific effect on the nervous system, and chiefly evince their powers in quieting nervous irritation, relieving pain, and in stimulating the nervous tissues to a healthy action. These agents are not necessarily narcotics, or soporifics, although the most permanent and potent anodynes are such; or it seems, at least, that the anodyne properties are generally associated, in medicinal plants, with narcotic and soporific. Nevertheless, it is certain that there are articles of medicine which are considerably prompt in quieting nervous irritation, and relieving pain, that do not produce any stupefying or soporific effects.

Medicines of this class are particularly indicated in cases of nervous weakness, chorea, tetanus, epilepsy, delirium tremens, neuralgia, subsultus tendinum, &c.

SPECIAL NERVINE TONICS AND ANODYNES.

CYPRIPEDIUM PUBESCENS.

Yellow Lady's Slipper, American Valerian.

Description.—There are several varieties of the lady's slipper that are nearly of like value as nervines. Besides the pubescens,[*] we have the candidum, parviflorum, spectabile, and the aucale, all of which are used for the same purposes. The yellow lady's slipper is, however, generally considered rather the best.

In their appearance, the several varieties bear considerable resemblance, excepting that they vary somewhat in size, the number of their leaves, and color of their blossoms. The candidum has white blossoms, the spectabile red, and sometimes grayish, while, as already stated, that of the pubescens is yellow. The acaule is of smaller growth than the rest.

The root of the lady's slipper is perennial, of a dirty yellow or brown color, with long crooked fibres, resembling the raveling of knitting. The stem is upright, round, and sheathed by the leaves. The leaves are from two to six in number, lance-oblong, striated, entire, and sheathing. The flower is of a very singular formation, having a fancied or real resemblance of a moccasin, and is situated on the top of the stem.

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[*] Sometimes called *luteum.*

Locality and habits.—These plants grow in a rich soil in moist places, in open woodlands, and meadows. The yellow variety is, however, found on uplands, as on hillsides, in woods where it is not too much shaded, and on plains. It is common in most parts throughout the United States.

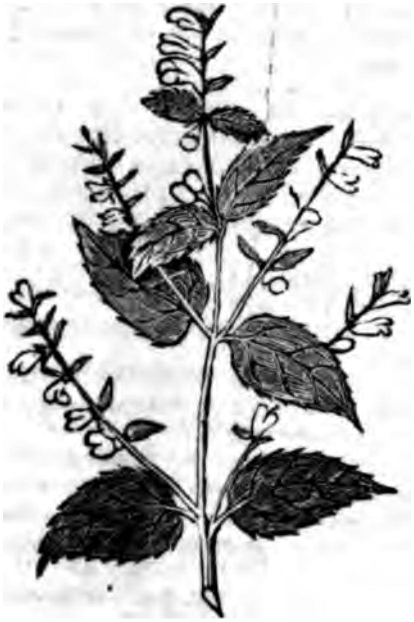
Medical properties and uses.—All the varieties of the lady's slipper above named, may be used indiscriminately, and will be found among our best nervines. They quiet nervous irritability, relieve pain, and seem to refresh both body and mind. They are harmless in their effects, and may be used in all cases in which articles of this class are indicated. They are particularly useful in hysterical affections, hypochondriasis, delirium tremens, &c. The author has known some of the most difficult cases of the latter kind yield with remarkable promptness to the effects of the lady's slipper. The dose is a tea spoonful of the powdered root, or as much of the tincture, often repeated.

The alcoholic extract is, however, the best form in which to use the medicine, as it is inconvenient to take sufficient quantities of the other preparations. The dose of the extract is three to five grains.

SCUTELLARIA LATERIFLORA.

Blue Skullcap.

Description.—Root perennial, fibrous, and yellowish. Stem erect, square, from one to three feet in hight, much branched; branches opposite, square and smooth. Leaves opposite, cordate, lanceolate, serrate, very thin, and supported on long petioles. Flowers labiate, with a tube half an inch in length, of a delicate blue color, and situated along on the tops of the stem and branches. The flowers are followed by seed vessels of a very singular shape; they are cuped, and open at the sides.



Scutellaria Lateriflora, (Blue Skullcap).

Locality and habits. — The skullcap is an indigenous plant, growing in pasture grounds, along fences, and in open woods.

Medical properties and uses.—Skullcap is one of our most efficient nervine tonics, and antispasmodics; it operates with promptness and certainty, and is applicable in all cases of nervous debility, and irregular nervous excitement. The author has been very successful with this article, in connection with lobelia, in the treatment of hydrophobia. No article seems to answer a better purpose in cases of the nervous weakness common to females. It is also very applicable in the debility that follows protracted fevers; and has been highly recommended for the cure of intermittents.

This medicine, being a pure nervine tonic, may be relied upon in all cases in which articles of this class are indicated. The dose is a tea spoonful of the pulverized leaves, or as much of the tincture; but the extract is more efficient. A dose of this is three to five grains.

VALERIANA OFFICINALIS.

English Valerian.

Description. — The exotic valerian is a large handsome herbaceous plant, with a fibrous perennial root. The stem is erect, round, channeled, and from two to four feet in hight. The leaves of the stem are sheathing; the radical ones are larger, elliptical, and deeply serrate. In the former, the leaflets are lanceolate and partially dentate. The flowers are small, white or rose colored, and situated in terminal corymbs.

Locality and habits.—This plant is a native of Europe, where it is found in damp woods and meadows, and sometimes on uplands.

Medical properties and uses. — This is an excellent nervine, particularly serviceable in hysterical affections, but may be used with advantage in all cases in which the American valerian is found serviceable, and will be found superior to it in many cases. The dose is a tea spoonful of the pulverized root, but it is more commonly prescribed in tincture; the dose of this, is from one to two tea spoonfuls. An oil may be distilled from it containing the virtues. A dose of this is from three to six drops. In selecting the imported valerian, it is important to distinguish the English from the German, as the former is much preferable.

LACTUCA ELONGATA.

Wild Lettuce; Trumpet-weed.

Description.—This is an indigenous biennial plant, with hollow stem, from three to six feet in hight. The leaves are very deeply toothed, somewhat resembling the dandelion, smooth on the under side, and sessile. The flowers resemble those of the common garden lettuce, and like them, are disposed in corymbose panicles.

Locality and habits.—The wild lettuce is a very common plant, found throughout this country, growing in waste fields, open woodlands, and roadsides; but delighting most in a rich soil. It flowers in June and July.

Medical properties and uses.—The milky juice of this plant, is an excellent anodyne, and nervine, operating with safety and promptness. It is without any narcotic power. There is perhaps no better application than this for painful hæmorrhoidal tumors. It seems to quiet the irritation, and rapidly remove them. The indications for its internal use, are tenesmus, spasms, chorea, &c. The dose is from five to fifteen grains of the inspissated juice.

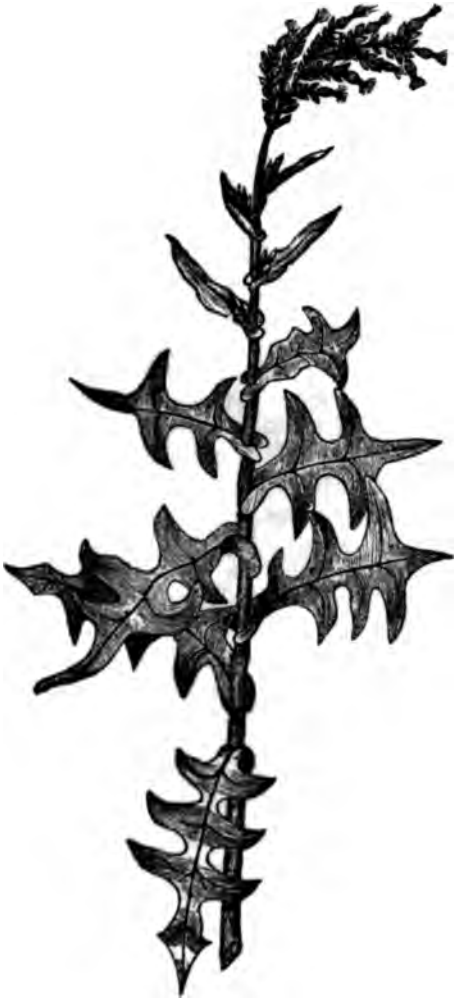
ASARUM CANADENSE.

Wild Ginger.

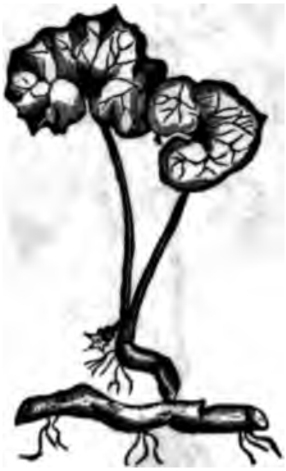
Description.—Root horizontal, fleshy leaves, petioleform, long footstalks rising from the root. They are reniform pubes, erect entire. Flowers close to the ground, purple, tubercular, with a pasistant, and divided into three pointed segments. The entire plant is aromatic.

Locality and habits.—The asarum grows in a fertile soil, on hill-sides and bottoms, in slightly shaded situations, in most of the States.

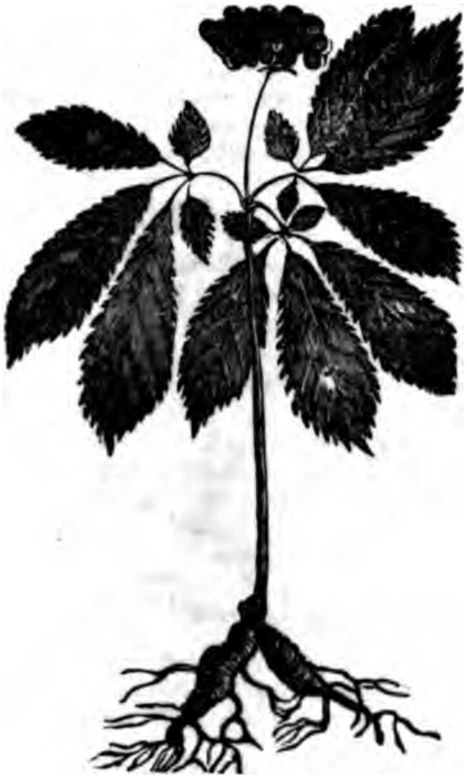
Medical properties and uses.—The asarum is one of our best nervines. It is considered by Dr. A. Curtis, to be superior to the valerian. The virtues are dependent



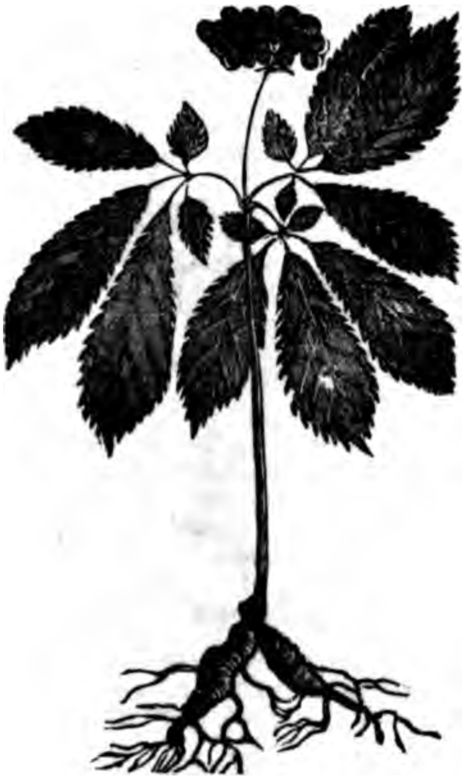
Lactuca Elongata. (Wild Lettuce.)



Asarum Canadensis, (Wild Ginger).



Panax Quinquefolium, (Ginseng).



Panax Quinquefolium, (Ginseng).

upon an essential oil, and may be obtained by distillation It should not be submitted to decoction, but be taken in powder, infusion, or the oil may be given in doses of five to ten drops.

PANAX QUINQUEFOILIA.

Ginseng.

Description.—The ginseng has a perennial, fusiform root, of the size of a man's finger or larger. The stem is upright, round, smooth, from six inches to a foot in hight, and divided into three branches on the top. The leaves are compound, consisting of five, or more rarely of three or seven petiolate, oblong, ovate, accuminate, serrate leaflets. The flowers, which are arranged in a simple umbil, supported by a panicle rising from a fork of the stem, are small and of a greenish color. They are followed by a cluster of kidney-shaped, scarlet berries, containing two and sometimes three seeds.

Locality and habits.—This is an indigenous plant grow-ing in rich soil, in open woods and new grounds, throughout this country.

Medical properties and uses.—The ginseng is a good nervine tonic, gentle stimulant, demulcent and diaphoretic. It is very useful in nervous affections characterized by debility and irritability.

This plant is valued extremely high in China, where no medicine is much esteemed unless combined with this. But in this country, it is not much esteemed by the profession generally. Still, as a nervine, the medicine well merits a place in our materia medica. The usual dose is a tea spoonful of the pulverized root, but may be taken in much larger portions.

ANGELICA ARCHANGELICA.

Garden Angelica ; Archangel.

Description.—Root biennial, long, thick, fleshy, and fibrous. Stem large, round, hollow, jointed, channeled, smooth, branched, of a purplish color, and some five feet or more in hight. The leaves which stand on long, round, hollow footstalks, are doubly pinnate, with ovate, lanceolate, pointed, serrate leaflets, of which the terminal one is tri-lobed. The flowers, which are small, are of a greenish-white color, situated in terminal umbils The seed is round and flat, with a swelling in the middle.

Locality and habits. — This plant is a native of Lapland and northern Europe, but is now cultivated in nearly all our gardens.

Medical properties and uses. — The seed and root of this plant are aromatic, nervine, and carminative, and are very good to cover the taste of less pleasant medicines; and in their use, therefore, we have a double advantage in all cases in which articles of this class are indicated.

ANGELICA ATROPURPUREA.

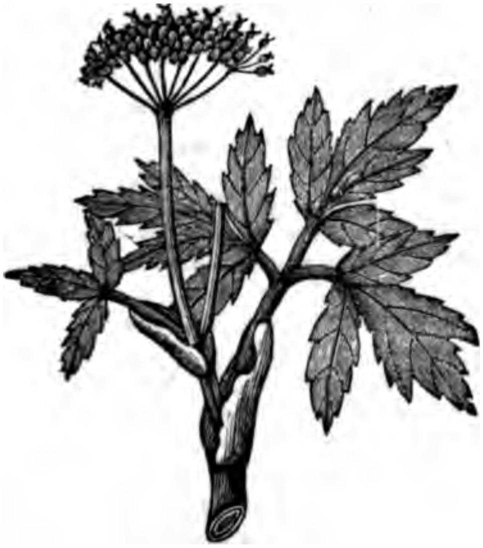
Wild Angelica.

Description. — This plant very closely resembles the foregoing, having a large perennial root, and a dark, smooth, hollow, herbaceous stem, growing from four to ten feet high.—The leaves are ternate, and supported on inflated footstalks; their leaflets are ovate, acute, serrate, and the three terminal ones joined at the base. The flowers are of a greenish white color. Seeds not so large as those of the archangelica, but of nearly the same shape.

Locality and habits —The *angelica atropurpurea* is found throughout the United States, in meadows, and swampy places. It flowers in July.

Medical properties and uses. — This is an aromatic nervine tonic, stimulant, and carminative. The seeds and roots are the parts used. They are a valuable remedy in diseases of children, such as colic, pains in the stomach, &c. The seed also forms a very good vehicle for the administration of other medicines, especially cathartics, disguising their taste, and modifying their griping effects. Dose, from 30 to 60 grains, in substance, or it may be used by infusion

ANISE-SEED, (*Anisum Semina.*) — This is a very good anodyne and carminative, and is useful in colic, and flatulent disorders generally. It is peculiarly serviceable as a soothing anodyne for infants, and in modifying the unpleasant effects of other medicines. The dose for an



Angelica Atropurpurea, (Masterwort).

adult, is a tea spoonful of the powder, or a table spoonful of the tincture. For a child two years old, a tea spoonful of the tincture may be given.

Fennel-seed, (*Fœniculum Semina.*)—This is also a valable anodyne, and carminative, and may be used in all cases where the anise would be indicated.

Camphor.— Camphor is an excellent anodyne, operating with remarkable promptness. It is particularly useful to relieve afterpains in obstetrical practice. The medicine is generally used in tincture, of which the dose is a tea spoonful every 30 or 40 minutes, until relief is obtained.

II. ANTISPASMODICS.

This is a class of remedies that in their effects on the system, have a tendency to modify irregular nervous action and thus to relieve spasms. The medical agents constituting this class, differ from the foregoing in their being more powerful, permanent, and relaxing in their effects. It is true, however, that many articles called nervines and anodynes, are prominently antispasmodic in their operation.

Antispasmodics, as the name indicates, are particularly useful in all cases of convulsions or spasms; such as epilepsy, apoplexy, tetanus, chorea, hydrophobia, &c. They are also very serviceable to relieve that constricted condition of the capillary system, and tightness of the skin, that is peculiar to fevers. Arterial excitement may be modified by them, and thus congestions are prevented or overcome.

SPECIAL ANTISPASMODICS.

LOBELIA.

Lobelia inflata, without doubt, stands at the head of our antispasmodics. Nor are these properties of the medicine less remarkable for their effects, than the emetic, or any other that it possesses. Spasms of every kind, yield to the lobelia with astonishing promptness. The most violent spasms that attend hydrophobia, or apoplexy, have been known to yield to it in from 15 to 20 minutes. It may therefore be used with confidence in all cases in which medicines of this class are indicated. The dose, as an antispasmodic, in violent cases, is 5 to 10 drops of the oil, or a tea spoonful of the pulverized seed, repeated as often as it is thrown up, or once in from ten to fifteen minutes. The medicine should, in urgent cases, be administered by enema, at the same time. For use as an antispasmodic, this article is usually combined with others of this class.

CAULOPHYLLUM THALICTROIDES.*

Blue Cohosh; Blueberry.

Description. — Root perennial, extremely fibrous, and of a dirty white or brown color. Stem from 1 to 3 feet high, smooth, erect, divided into three branches at the top. Leaves petiolate, smooth, and palmate or lobed, with three, seldom five folioles, the lateral ones nearly sessile, oblong, unequally bifid, and acute. The terminal foliole is separated, larger than the rest, having five, rarely three unequal lobes or segments. Flowers yellowish-green, small, and situated in a loose corymb in the forks of the stem or branches., these are followed with blue berries of the size of a cherry-stone.

Locality and habits. — The blue cohosh is an indigenous plant, very common in some of the Western States, growing in rich moist soil in open woodlands. It blossoms in May and June.

Medical properties and uses. — The blue cohosh is antispasmodic, emmenagogue, and diaphoretic. The medicine is certainly worthy of a high place among our indigenous medical plants, although it has not as yet received much attention by authors. The Indians of our country, it seems, practised its use very extensively as an antispasmodic and emenagogue. When first taken, the medicine imparts a very unpleasant taste, and scratching sensation to the mouth and fauces, and is hence not without some objection as a general antispasmodic.

This article seems to exert a peculiarly healthy influfluence over the muscular fibre, and is hence valuable as a common drink in transient cases of cramp, and in rheumatism, chorea and subsultus tendinum.

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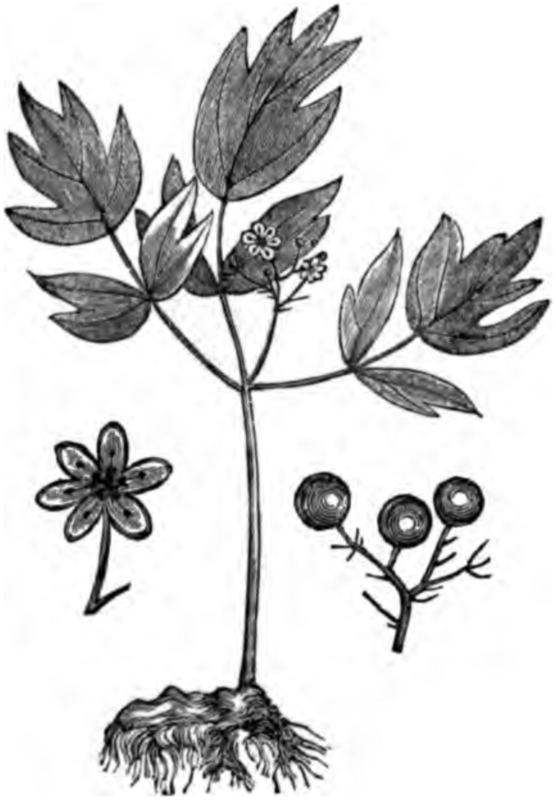
* *Leontice Thalactroides.* — LINNÆUS.



Caulophyllum Thalictroides, (Blue Cohosh).

The decoction or infusion of blue cohosh, is highly recommended as a drink before, and during parturition. It is to the use of this article during the last month of pregnancy, that the great facility in parturition, so common among the Indians, is ascribed; although in this, the virtues of the medicine are certainly overrated.

When used in substance, the dose of the pulverized root is from 15 to 20 grains; but the infusion is generally preferred: an ounce of the root is scalded in a pint of water, and left to steep for an hour on a hot stove or coals. Of this the patient is required to drink freely at suitable intervals. The extract is, however, the best way in which to take it. The dose of this is from five to ten grains.

FERULA ASSAFŒTIDA.

Assafœtida.

Description.—The plant yielding the drug of commerce, according to the United States Dispensatory, bears the following description: "The root is perennial, fleshy, tapering, when of full size, as large as a man's leg, beset with many small fibres near the top, externally blackish, internally white, and abounding in an excessively fœtid, opaque, milky juice. The leaves, all of which spring immediately from the root, are six or seven in number, nearly two feet long, bipinnate, with the leaflets alternate, smooth, variously sinuated and lobed, sometimes lanceolate, of a deep green color and fœtid smell. From the midst of the leaves rises a luxuriant, herbaceous stem, from six to nine feet in hight, two inches in diameter at the base, simple, erect, round, smooth, striated, and terminating in large plano-convex umbils with numerous radii. The flowers are pale yellow; the seeds oval, flat, foliaceous, and of a reddish-brown color. The plant is said to differ greatly both in the shape of its leaves, and the character of its fœtid product, according to the situation and soil in which it grows."

The assafœtida gum as found in the shops, is in reddish-brown irregular masses. When broken it presents an irregular yellowish-white surface, somewhat shinning in appearance, but on exposure to the air it soon turns to a purplish-red, and afterwards to a reddish-brown, as above stated.

Locality and habits.—This plant is a native of Persia, and perhaps other Eastern countries, flourishing very abundantly in the mountainous countries of Chorassan and Laar, where the juice is collected by cutting the root transversely at repeated intervals while in the ground,—the juice exuding from the wounded surface.

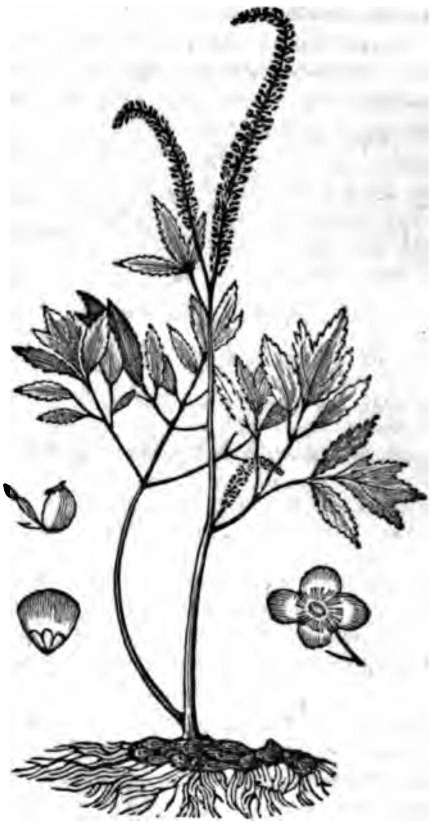
Medical properties and uses.—The assafœtida gum is an excellent antispasmodic, and is also stimulant, expectorant, and slightly laxative. It is peculiarly adapted to the treatment of hysterical affections, convulsions in children, epilepsy, colic pain, cramp in the stomach and bowels, dyspepsia, and pectoral diseases. The usual forms of its use, are in pills and tincture. One common sized pill, or a tea spoonful of the tincture is a dose, which may be repeated once in an hour, or two until relief is obtained.

VALERIAN.—Both the English and American (lady's slipper) valerian, are excellent antispasmodics, and may be used as such with confidence, especially in cases of hysterical fits, delirium tremens, subultus tendinum, and in some cases of epilepsy.

SKULLCAP.—(*Scutellaria Lateriflora.*)—This article is of late gaining considerable popularity as an antispasmodic. It may be used in combination with other antispasmodics, in all cases in which articles of this class are indicated.

SKUNK CABBAGE, (*Ictodes Fœtida.*)—The root of this plant is an excellent antispasmodic. It has been used as such for a long time, and will generally maintain its character in ordinary cases. It must be taken in substance in tea spoonful doses.

MUSK.—Excepting the lobelia, there is perhaps not another so powerful an antispasmodic. But its unpleasant odor, and comparatively high price, however, makes its use less extensive. It is a valuable remedy in all kinds of convulsions, spasmodic asthma, hiccough, &c. The medicine is usually given in substance; the dose is from six to thirty grains.



MACROTRYS [BOTROPHIS] RACEMOSA, (Black Cohosh).

Castor.—This, like the musk, is an animal production, procured in cold northern countries, as in Poland, Russia, Siberia, Thibet and Tartary. The castor is a good antispasmodic, but is now chiefly restricted in its use to hysterical affections.

Oil of Amber, (*Oleum Succini.*)—This article has generally been regarded as meriting a place among the antispasmodics. It is now principally used in spasmodic affections of the genital organs.

Carbonate of ammonia, oil of cajeput, camphor, galbanum, gum ammoniac, garlic, capsicum, ether, and many other articles not here treated as such, are in occasional use as antispasmodics, and not a few of them are valuable.

CHAPTER V.

MEDICINES AFFECTING MOST PROMINENTLY THE UTERINE SYSTEM.

I. EMMENAGOGUES.

Emmenagogues are a class of medical agents that promote menstruation. It is, however, doubted by some authors, whether there are any articles that have a specific effect on the uterus. But although the sanguine practitioner may, in some instances, be disappointed in the use of some of his agents of this class, yet it seems that the majority of our most experienced practitioners, are free to give their convictions in favor of the specific emmenagogue effects of many of our remedies of this class. It seems, moreover, that even those who appear to be the most sceptical on this point, are in the constant habit of prescribing articles of this class to fulfill the appropriate indications.

SPECIAL EMMENAGOGUES.

BOTROPHIS RACEMOSA.*

Black Cohosh, Rattle-weed, Black Snake-root, Squaw-root.

Description.—Root perennial, contorted or knotty, irregular, black without, with numerous long black fibres.

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* *Macrotrys* of Eaton.

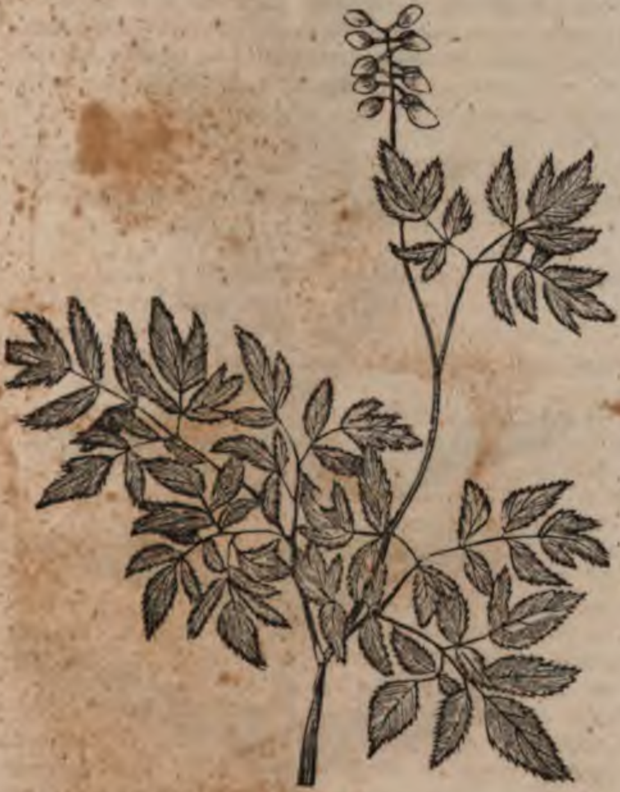
Stem erect, round, smooth, and divided above into three branches, which divide again into three smaller ones each, forming the petioles of the leaves. The leaves are large, and alternately decomposed, having oblong, lanceolate, acute, and deeply serrated leaflets. The flowers are small, white, and disposed in a beautiful, long, terminal, wand-like raceme, that rises sometimes six or eight feet from the ground. The flowers are followed with small, ovate capsules, that continue on the stem through the winter, or until broken down.

Locality and habits.—This stately plant beautifies nearly all our western bottom lands, and rich hill-sides. It flowers in June and July.

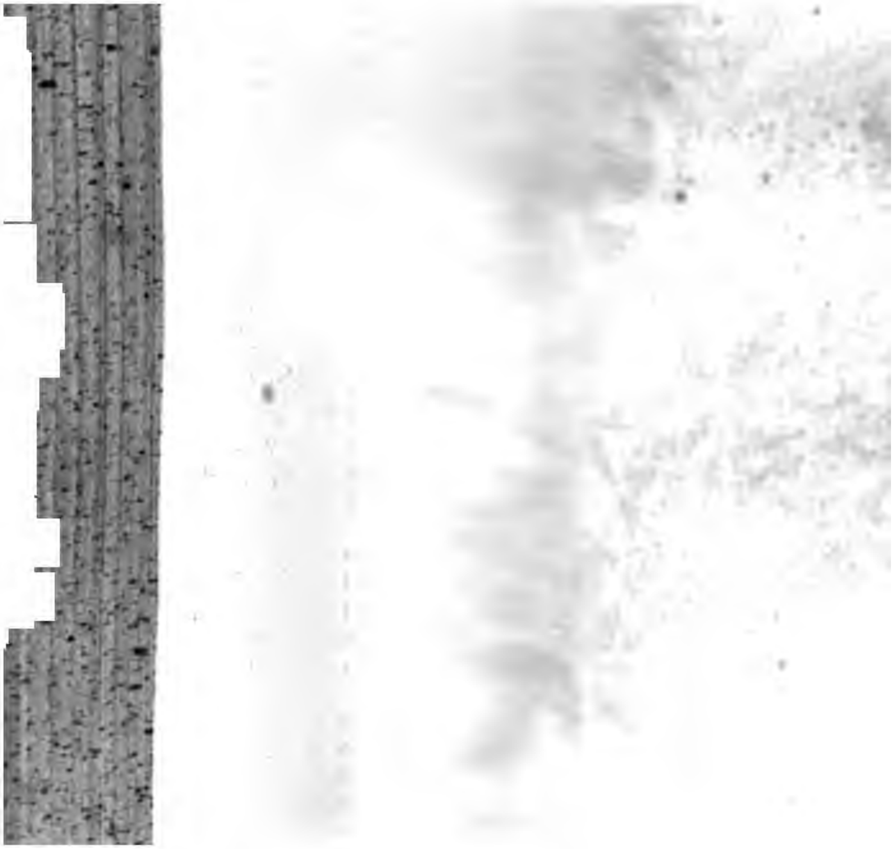
Medical properties and uses.—The black cohosh is perhaps the best emmenagogue that we possess. It is also a good nervine, and anti-spasmodic, removing chorea, epilepsy, and many other affections of this kind. It also promotes the secretions of the general system very remarkably, especially those of the respiratory organs. It is an invaluable remedy in rheumatism; the author has used it for this purpose with general satisfaction. Still its most valuable properties, perhaps, are the emmenagogue.

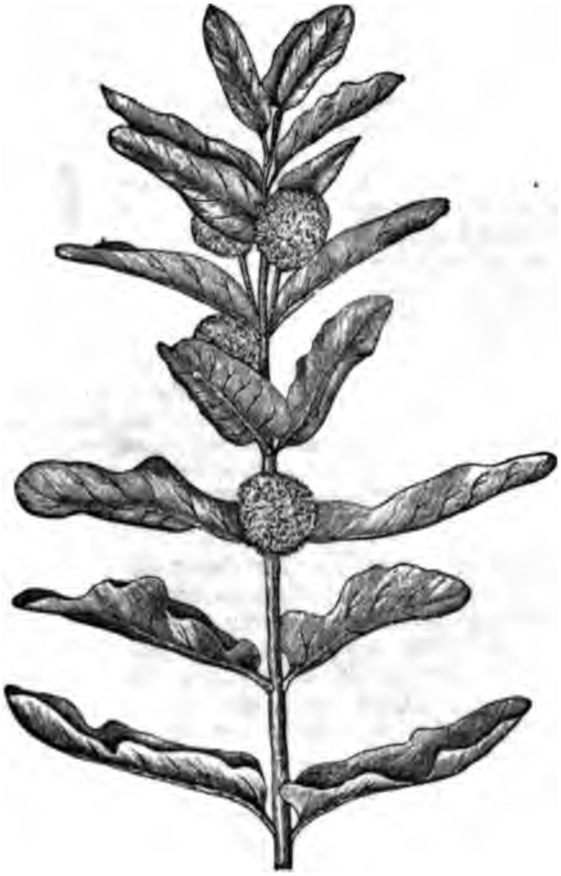
The medicine, when employed as an emmenagogue, should be taken at, or commencing a little before the time of the usual evacuation, and continued freely until the desired effect is produced, at the same time using such other means as are best calculated to favor the object, as the foot, hip, or vapor bath, &c.

Black cohosh is commonly taken by infusion, but the extract of *botrophin* (*macrotin*) is entirely the most convenient form in which to take it. The tincture is also good. The infusion is prepared by scalding an ounce of the powdered root in a pint of water, and letting it steep for an hour on a hot stove or coals; of this the patient should take a wine glassful every hour until it affects the head with a sensation of vertigo or dizziness, after which the dose should be lessened. The dose of the tincture is a table spoonful three or four times a day.



ACTEA ALBA, (White Cohosh).





Asclepias Syrica, (Cotton-weed).

ACTEA ALBA.

White Cohosh, White Baneberry.

Description. — The root, stem, and leaves of this plant very closely resemble those of the black cohosh, which evidently belongs to this natural family. See Botrophis Racemosa.

The stem of the white cohosh, however, is not quite so long as that of the black, and perhaps the leaves are not so large as those of the latter. The fructification of the white cohosh also differs considerably from that of the black. It consists of a comparatively short peduncle, arising from the junction of the petioles of the leaf, bearing a cluster of oblong, white berries, which are situated on short red stems supported on the common peduncle,—the whole in form somewhat resembling a bunch of grapes.

Locality and habits. — The white cohosh, and another variety called red cohosh, very closely resembling this, differing only in the color of the berries, (which in that are red,) are indigenous to this country, and are found, though not very plentifully, in the Middle and Western States.

Medical properties and uses. — The medical properties of the white cohosh are very similar to those of the black, especially as regards their emmenagogue powers, — both articles standing in the first-rank of this class; the dose is the same as that of the black. The red cohosh is also regarded as an emmenagogue. The berries of both the white and red are said to be poisonous, and hence the name *bancberry*.

ASCLEPIAS SYRICA.

Cotton-weed, Silk-weed, Wild Cotton.

Description.—Root perennial, horizontal, white, of considerable length, and with but few fibres. Stem erect, round, of a green color, and from two to five feet in hight. Leaves opposite, oblong, rounded at both ends, entire, smooth, green on the upper side, white and prominently veined underneath. Flowers of a pale purple, sweet-scented, and situated in large round clusters, rising axillary to the leaves. The flowers are followed with pods, containing the seed and seed-down. The pods are about an inch or more in diameter, perhaps three inches in length, obtuse at the base, and pointed at the other end. The entire plant, when wounded, exudes a thick milky juice.

Locality and habits.—This beautiful plant is indigenous to this country, and grows very plentifully on sandy plains, road-sides, and the banks of streams. It flowers in July and August.

Medical properties and uses.—The cotton weed is a good emmenagogue, possessing also anodyne properties of considerable value. Its emmenagogue powers have of late been well attested in numerous cases. While using the medicine, the patient should endeavor to promote its good effects by drinking a tea of the black cohosh, bathing the feet in warm water, and applying such other means as are calculated to accomplish the object. The dose of the pulverized bark of the root is from 20 to 30 grains, three to four times a day; of the tincture a table spoonful is taken three times a day.

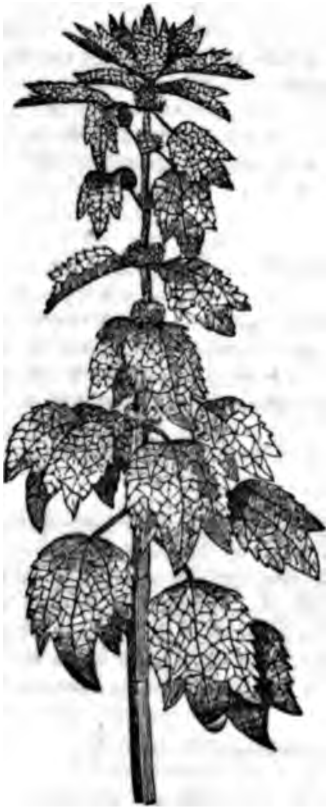
LEONURUS CARDIACA.

Motherwort.

Description.—This is a well known naturalized plant, growing about door-yards, wood-houses, and stables. It has a square stem, about two or three feet in hight. Its leaves are rough, tri-lobed, serrate, opposite, and supported on long slender petioles. The flowers are small, and situated in clusters around the stem, axillary to the leaves; their calixes forming a bunch of very sharp prickles.

Medical properties and uses.—Motherwort possesses emmenagogue and tonic properties. It has for a long time been a popular remedy in domestic practice. It is best used in combination with the black cohosh, or some other more powerful article. The dose is a wine glassful of a strong infusion, made of the leaves, either in the dry or green state. The tincture is used in table spoonful doses.

PENNYROYAL, (*Hedeoma Pulegioides.*)—The pennyroyal has for a long time been regarded as possessing emmen-



Leonurus Cardiaca. (Motherwort.)

agogue powers. It is much used in domestic practice with a view to these properties; nor has the profession been indifferent to its merits, as an agent of this kind. The medicine is gently stimulant in its effects, invigorating vital action, and promoting the natural functions of the various organs. In order to exhibit its emmenagogue effects, the medicine must be taken in large and frequent doses: an ounce of the leaves and seed should be scalded in a pint of water and taken freely at short intervals, — the patient sitting before a good fire, with the feet in a vessel of warm water; or what is better, the vapor or hip bath may be applied. The oil is sometimes preferred; the dose of this is from ten to twenty drops, taken with sugar.

Tansy, (*Tanacetum Vulgare.*) — This well known garden plant is one of the most common articles used in domestic practice for menstrual obstructions. The medicine is an aromatic stimulating tonic, invigorating the system, and promoting the excretions. The dose is a wine glassful of the strong infusion three or four times a day, with other means to promote its effects.

Rosemary, (*Rosemarinus Officinalis.*) — This is an evergreen shrub, that is a native of Asia Minor, and other parts bordering on the Mediterranean, but is now cultivated in gardens, in Europe and in this country. The whole shrub has a strong aromatic or balsamic smell, and pungent and warming taste. The flowering summits of the branches, however, are the parts chiefly used for medicinal purposes.

The rosemary is considered emmenagogue in its effects. The author has never used it as such; and cannot therefore speak of its effects in this way, from his own experience; but its diffusive stimulant powers seem to promise something in its favor as an emmenagogue. The dose is from three to ten drops of the oil, taken on sugar.

Madder, (*Rubia Tinctorum.*) — This is a perennial plant much cultivated in Europe as an article of commerce.

Madder is said to possess emmenagogue powers, and is recommended as such, in doses of from twenty to thirty grains three times a day. When taken, it stains the bones of animals red, but is not generally supposed to possess any poisonous properties.

SENEKA SNAKE-ROOT, (*Polygala Senega.*) — This article is a pretty good emmenagogue, and as a medicine of this class, is much depended on by old school physicians, although it is much inferior to the black cohosh, and several other articles used by the reformers. The dose is a tea spoonful of the pulverized root, once in three or four hours.

SMART-WEED, (*Polygonum Hydropiperoides.*) — This article is very highly recommended by Dr. Eberle, as an emmenagogue. The medicine, however, should not be scalded in its preparation, as this process very much impairs its virtues. The powdered leaves may be taken in substance, in tea spoonful doses; or the tincture prepared from the same, may be taken in the same doses, three or four times a day. This latter, is the form in which Prof. Eberle was in the habit of using it.

ALOES. — The emmenagogue properties of this article are pretty generally known, and need no commendation. The dose is from five to ten grains three times a day. The medicine is best taken in combination with capsicum and myrrh, in the form of pills. When the patient is troubled with hæmorrhoids, aloes is objectionable.

MYRRH, (*Myrrha.*) — The common tincture of myrrh is a pretty good emmenagogue, and may be used in tea spoonful doses, in connection with other medicines of this class, to warm up the system and promote the good effects of the other medicines.

WILD GINGER, (*Asarum Canadense.*) — This is a pleasant, aromatic stimulant, and emmenagogue. The dose is a tea spoonful of the powdered root, three or four times a day; or a strong infusion may be taken freely.

CAPSICUM. — This, as well as most other active stimulants, is emmenagogue in its effects. It is not a difficult matter to discover how a general excitant may prove effectual in relieving particular obstructions. It will be seen by this principle, that the lobelia, if properly used, will prove itself an emmenagogue of no mean character.

The oil of savin, and the black hellebore, have for many years been popular articles of the emmenagogue class, among old school physicians; but they are not sufficiently safe in their use, and should be rejected.

CHAPTER VI.

MEDICINES AFFECTING VARIOUS ORGANS.

I. STIMULANTS OR EXCITANTS.

In the broadest or most extensive signification of the term *stimulus* or *stimulant*, every article of the materia medica is embraced, as we cannot conceive of any effect in the living economy, without admitting a *stimulating* or *exciting* cause corresponding with the effect produced. In other words, to *effect* or *produce action*, is to *stimulate*. The term *stimulant* is used, however, in a more definite sense, to distinguish such articles of the materia medica, as evince very prominent, exciting, and invigorating effects on the nervous and vascular systems, without giving rise to any particular evacuation.

With this definition of the term, it is evident that this class of agents is perhaps the most important in the materia medica; for as the primary cause of all diseases is a diminished condition of the vital powers, or in other words, a want of paramount vital resistance, those medicines that have a tendency to stimulate, invigorate, and assist the vital powers, are of all the most important.

Stimulants are particularly indicated in all marked cases of debility, as in low fevers, cholera, dysenteries, &c. The effects of most other medicines are also much promoted, in many instances, by combining or administering with them proper stimulants.

CAPSICUM

Bird Pepper; Cayenne Pepper.

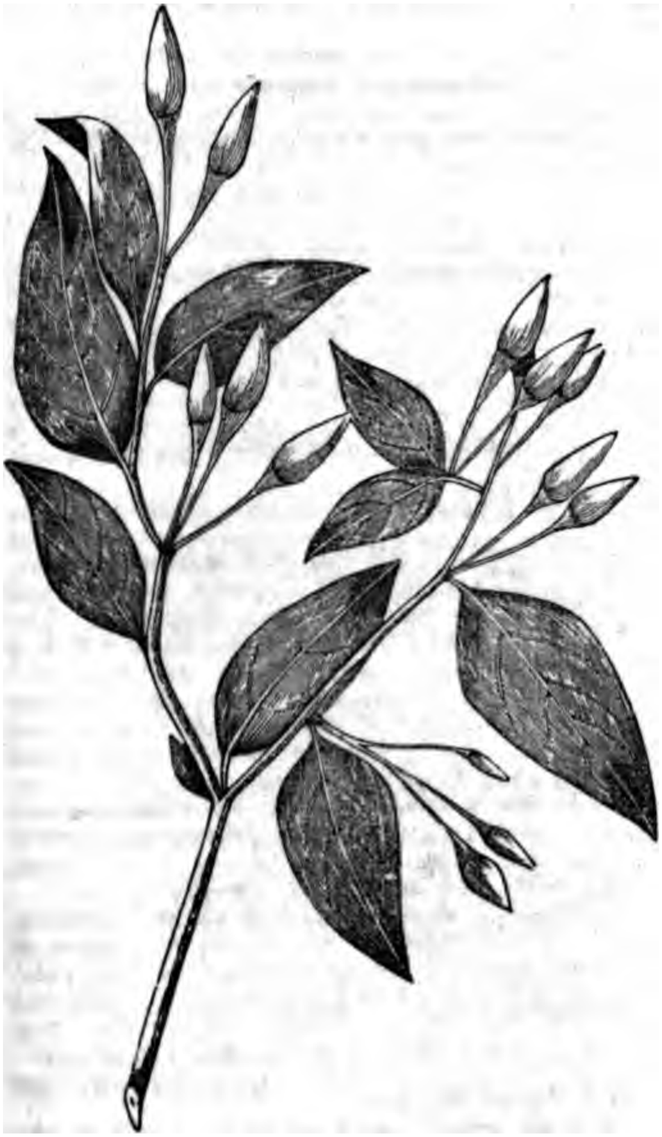
Description. — The genus *capsicum*, proves itself a very extensive family. The West Indies produce many different species. It seems, according to Mr. Hughes, in his history of Barbadoes, that this island alone produces some twelve or fifteen different species. The number of the different species in the East Indies, is perhaps still greater; and this may also be said of Africa, and perhaps of South America. In the United States and Europe, there are at least from fifteen to twenty different varieties cultivated. It is true that many of these different species of capsicum, enumerated in these several countries, may be the same; yet the genus is no doubt much more extensive than it has been generally supposed.

The bird pepper is common both in Africa and the West Indies, and is generally considered among the best of all the pepper; and of this, that cultivated in Africa, is also usually preferred. This species is a perennial plant, with a greenish, woody, branching stem. The leaves are lanceolate, entire, smooth, acute, and of a beautiful green color. The blossoms are white, and small. The pod or seed vessel, is about three quarters of an inch in length, and about a quarter of an inch in thickness. It is of a conical shape, with a rounded base, and when ripe, of a light red color.

The *capsicum minimum*, is the strongest and most permanently stimulant of all the different commercial varieties of the drug. In this the pod is very small, being scarcely over half an inch in length.

The capsicum brought to us from the East Indies is considered much inferior to that coming from Africa, or the West Indies. It consists of curved, tapering pods, about an inch and a half or two inches in length, and when ripe, of a yellow or bright orange color. It is brought to us from Bombay or Calcutta in great quantities, and is distinguished here as the Bombay, East India, or Chilly peppers.

All, or any of these varieties of capsicum are generally ground up together indiscriminately, and are known under the name of *Cayenne pepper*.



Capsicum Minimum, (Cayenne Pepper).

Those species of capsicum cultivated in this country and Europe, are annual, herbaceous plants, growing from a foot to eighteen inches in hight. The pods are generally large, and of a crimson, scarlet, orange, or deep yellow color. As a medicine, they are much inferior to the perennial species.

Medical properties and uses. — Capsicum is the purest, most prompt, powerful and permanent stimulant known. When taken, it produces a very pungent and biting sensation in the mouth, which is much increased by the contact of the air. The sensation produced in the stomach is warming, but as a general thing, by no means unpleasant.* Soon its congenial stimulating effects will be felt diffused throughout the body, producing a very agreeable exhilarating and reviving influence.

Capsicum is absolutely proscribed in fever and inflammation by the old profession, but its true therapeutic effects have been entirely misapprehended. It is by no means intrinsically disposed to produce fever or inflammation, but on the other hand it may be advantageously employed in all cases of low fevers, providing the system is kept relaxed and free.

When used in fevers, the skin must always be kept in a free and relaxed condition by the collateral use of some of the relaxing antispasmodics, as the lobelia, thoroughwort, &c. Thus while the system is relaxed, the vital energies may be assisted to repel and overcome disease.

The medicine is particularly applicable in all cases of enfeebled vital reaction. Its use should never be neglected in low fevers, choleras, palsies, suspended animation, violent hæmorrhages, and severe cases of dysentery.

It is very serviceable in dyspepsia or weak digestion. Its continued use will remove chronic constipation of the bowels.

As a gargle, in the putrid sore throat of scarlet fever, this article has gained great popularity, even among old school practitioners. In mortification, the medicine, as a local and general remedy, is of incalculable benefit.

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* When the stomach is cold, contracted, and very irritable capsicum sometimes produces considerable pain in this organ for a short time.

Capsicum is one of our best rubefacients; and, incorporated with pitch, it forms plasters of great value in cases of chronic difficulties, as affections of the spine, hip, liver, lungs, and spleen. The tincture and oil are also powerfully rubefacient.

An aged allopathic physician — a very learned and experienced man, in the acquaintance of the author, after suffering for many years with a disease of the heart, and after having lost all confidence in medicine, and having been repeatedly given up to die, was at length prevailed upon by an humble Reformer to try the effects of capsicum. The result was, that in the space of about nine months the Doctor was completely restored to health.

The dose of this medicine varies much according to the object of its use, but as a general thing, from five to twenty grains of the powder or tincture is taken. It is, however, generally given in combination with other articles. The most agreeable form in which to take it is in pills.

ZINGIBER.

Ginger.

Description. — The root of this plant is biennial or perennial, creeping, and tuberous. The stem is annual, two or three feet high, erect, solid, round, and inclosed in imbricated sheathing. The leaves are alternate, smooth, lanceolate, and acute. The flowers are of a dingy yellow color, and appear two or three at a time, between the bracteal scales, and have an aromatic smell.

Locality and habits. — Ginger is a native of Hindoostan, but is cultivated throughout both the East and West Indies.

Medical properties and uses. — This is an agreeable aromatic stimulant, considerably diffusive and permanent in its effects, and is an excellent substitute for capsicum, especially when given to children. It is a good carminative, frequently relieving pain in the stomach and bowels. It is an excellent addition to bitter infusions, and tonic preparations, giving to them an agreeable cordial operation upon the stomach. Applied to the surface, it acts as a rubefacient.

Ginger forms a valuable local application, in the form of a poultice, for the treatment of indolent ulcers, cancers, and scrofula.

PIPER NIGRUM.

Black Pepper.

Description. — The vine which bears the black pepper berries, grows to the length of twelve feet. The stem is round, smooth, woody, articulated and perennial. The leaves are of a deep green color, entire, smooth, ovate, accuminate, and attached to the joints of the branches. The flowers are sessile, white, supported by a cylindrical spadix, and are followed by round berries, which are red when ripe.

Locality and habits. — This plant grows wild in Cochin-China and India, and is cultivated in many parts of Asia and the Asiatic islands. It is propagated by cuttings, and supported by trees or props, provided for the purpose. It requires three or four years from the time of planting, before it bears fruit. The berries are gathered before they are ripe, and dried — hence their black and shrivelled appearance.

Medical properties and uses. — Black pepper is a warming stimulant, developing its effects throughout the whole system, to a considerable extent, although it produces its most permanent impression on the part to which it is immediately applied. It is frequently given with success in intermittent fevers, but is more especially valuable in flatulency, indigestion, nausea, want of appetite, &c. It is an excellent article in bilious and other colics, frequently affording immediate relief. An infusion of the black pepper frequently arrests the exhausting diarrhœa consequent upon scarlet and typhus fevers. The common dose is a tea spoonful of the powdered berries steeped in a cupful of water; or it may be taken in substance; or steeped in boiling milk, which renders it more agreeable to take, than when prepared in any other way. The dose may be repeated in one or two hours, according to circumstances. Some highly recommend taking the seeds entire, in the intermittent fever. Dr. Louis Frank, physician to Maria, Duchess of Parma, cured fifty-four out of seventy patients by the use of this means. He gave eight or ten of the seeds a day, and almost always effected a cure with the use of seventy or eighty of them.

MYRRHA.

Gum Myrrh.

The myrrh is the product of a shrubby tree, growing in Arabia and the East Indies. As brought to us, it consists of irregular reddish brown masses, of various sizes. It has a strong, but not disagreeable odor, and a pungent bitterish taste. That which is clean, and light colored, is usually the best.

Medical properties and uses.—Myrrh is stimulant, diaphoretic, tonic, antiseptic, and emmenagogue. When used as a stimulant, it is usually prepared in tincture with brandy. The tincture of myrrh is justly a very popular medicine; it is in equal favor with families and practitioners.

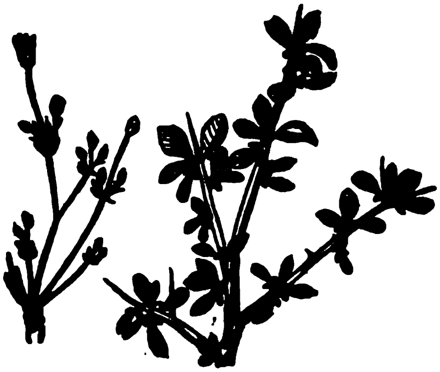
The medicine is especially serviceable in all low fevers, cholera, dysentery, scurvy, palsy, mortification and asphyxia. It is also commonly prescribed for colds, colic, diarrhœa, pain in the breast, rheumatism, gout, &c. The dose is a tea spoonful or more of the tincture.

CAMPHORA.

Camphor.

Camphor is a white gummy substance, of a very strong peculiar smell. It is a congelated essential oil, produced by different species of the Lauraceæ family, and perhaps by others. The medicine is so well known that it needs no further description.

Medical properties and uses.—Camphor is an active stimulant, and anodyne. It is applicable in cases of pains in the breast, stomach, and bowels; and in hysterical affections, faintness, &c. It is also much used as an external application, and in cholera.



Myrrha, (Myrrh).

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The usual form in which the medicine is employed, is in tincture, commonly called *camphire*. Of this the dose is from a tea spoonful to a table spoonful.

AMMONIÆ CARBONAS.

Carbonate of Ammonia.

This article is prepared by pulverizing separately, a pound of muriate of ammonia (sal ammoniac,) and a pound and a half of chalk,—mixing them thoroughly, and subliming with a gradually increasing heat.

Medical properties and uses.—Carbonate of ammonia is an active stimulant, diaphoretic, antispasmodic, and antacid. As a stimulant, it is particularly useful in typhus, typhoid, and low remittent fevers, especially when there is subsultus tendinum. The author has witnessed some of the most happy effects from its use in these cases. The medicine is also highly recommended as a remedy in gout, and chronic rheumatism.

SPIRITUS VINI GALLICI.

Brandy.

Brandy is obtained by distillation from wine, and is among the strongest spirituous liquors that we possess. The fourth proof French brandy is the best for medical purposes.

Medical properties and uses.—Brandy is an active stimulant, but is not very permanent in its effects, and is hence not generally much used by reformed practitioners simply as a stimulant; but is more used as a solvent for the resins, and other medicinal substances. It is generally used as a menstruum, in making tincture of myrrh, &c. Brandy is, however, sometimes given to patients low with typhus and other fevers. In these cases the dose is a tea spoonful or more. But a more usual form of its use is in panada, or toddy.

VINUM.

Wine.

Wine is a spirituous fluid,—the result of the fermentation of grape juice. There are a number of different kinds in market, but those most commonly used for medicinal purposes are the *Sherry*, *Madeira*, *Teneriffe*, *Port*, and *Claret*. *Sherry* is a sweet wine, containing about 20 per cent. of alcohol by measure, and has a dry aromatic flavor. *Madeira* and *Teneriffe* are slightly sour, and in strength nearly correspond with sherry. *Port* is of a deep purple color, strong, astringent, and slightly sweet. It usually contains a considerable quantity of brandy. *Claret* is a red wine, containing a small proportion of alcohol,—has a delicate taste, is slightly acid, and somewhat astringent.

Wines are generally used in cases of debility in aged persons, in low fevers, and in slow and tedious convalesence.

As a stimulant, port wine is rather the best; but some of the other varieties sometimes agree best with the stomach, as well as the taste.

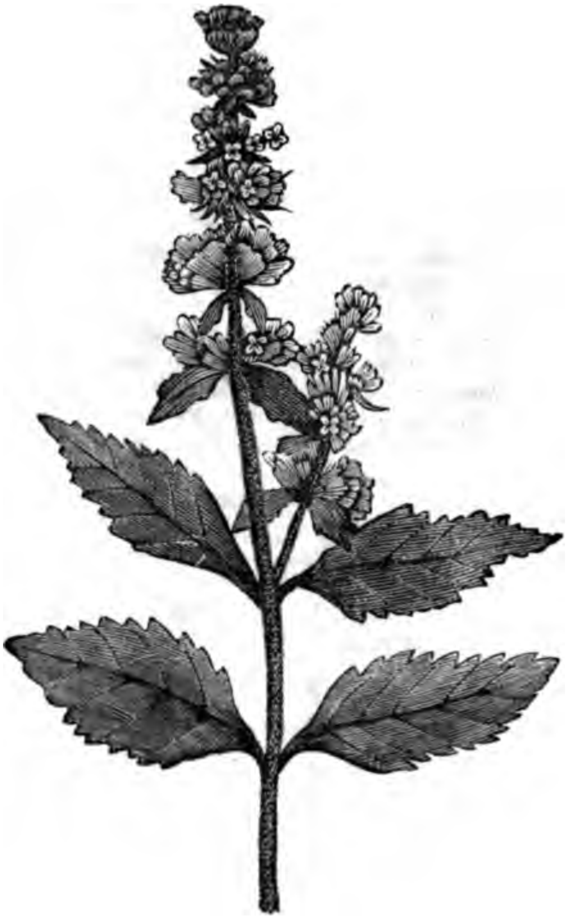
Wine may be given in its pure state, or in the form of *wine-whey*. This is prepared by putting a gill or more of wine into a pint of boiling milk,—separating the curd by straining, and then sweetening the whey that remains with loaf-sugar. Wine-whey is of peculiar service in low typhoid fevers, acting as a healthy stimulant, while it often promotes perspiration. The quantity of wine necessary to be used, depends upon circumstances. In sinking states of the system, a pint has been used in a few hours. It may be given in doses of a table spoonful or more, and repeated as the effects or circumstances may indicate.

MENTHA PIPERITA.

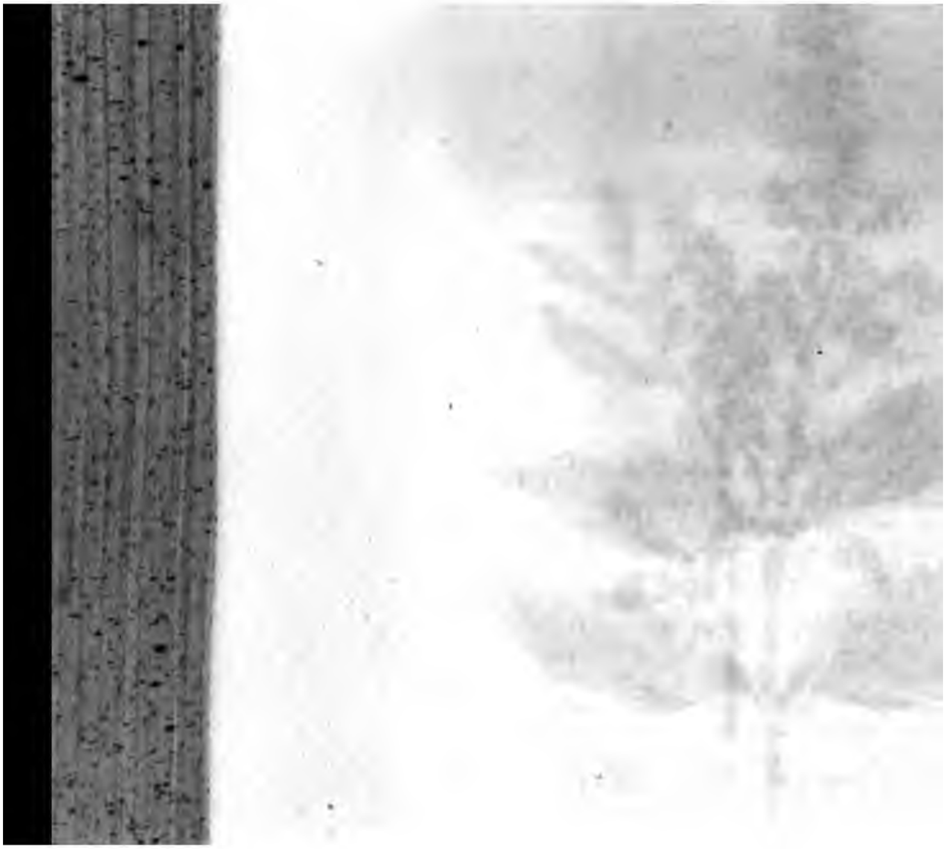
Peppermint.

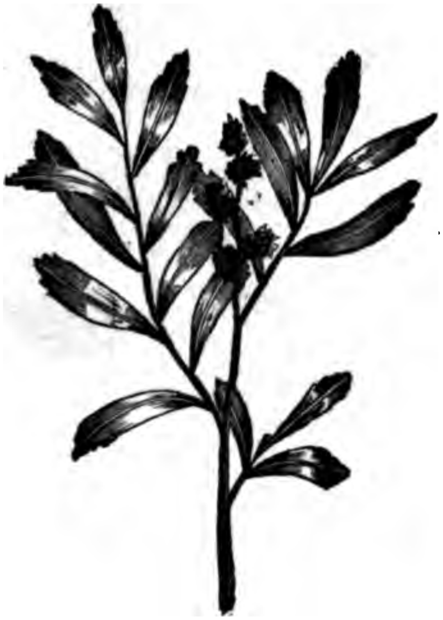
Description.—This is a very common plant, and needs but little description. It was introduced into this country from Europe, and grows in gardens, and in wet places, along streams, &c. In many places it is cultivated for distillation.

Medical properties and uses.—Peppermint is an aromatic stimulant, analogous in its effects to camphor. It forms a very grateful drink in fevers, on account of the cooling sensation it produces in the mouth. It is peculiarly serviceable in allaying nausea, relieving pains in the stomach and bowels, removing flatulency, in

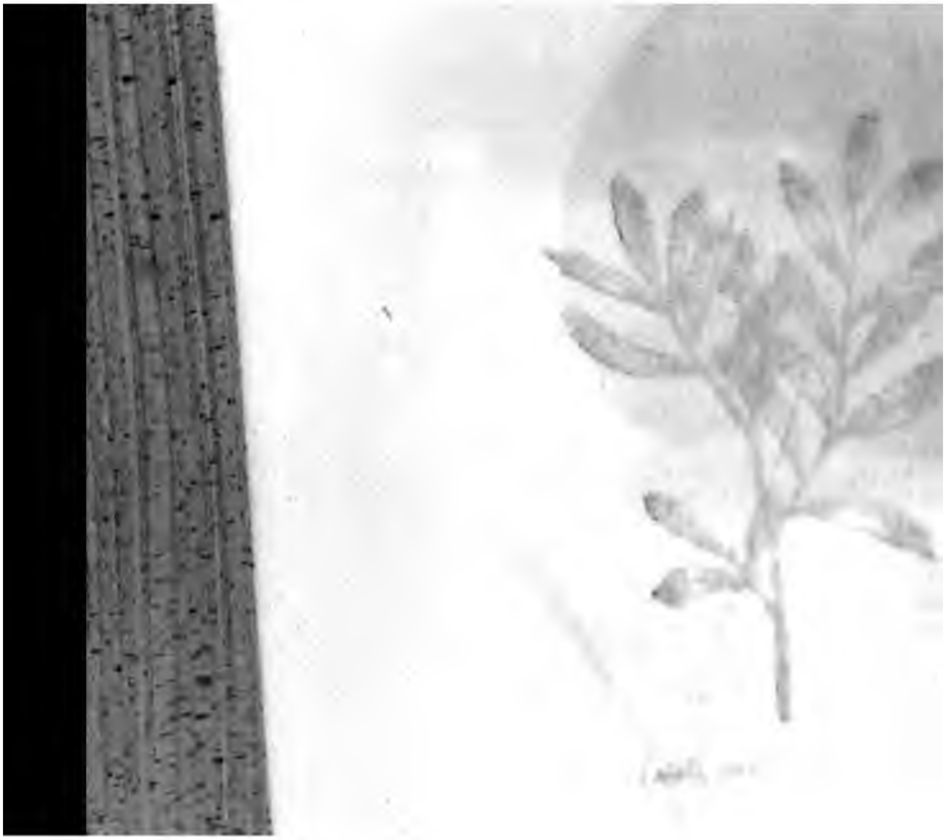


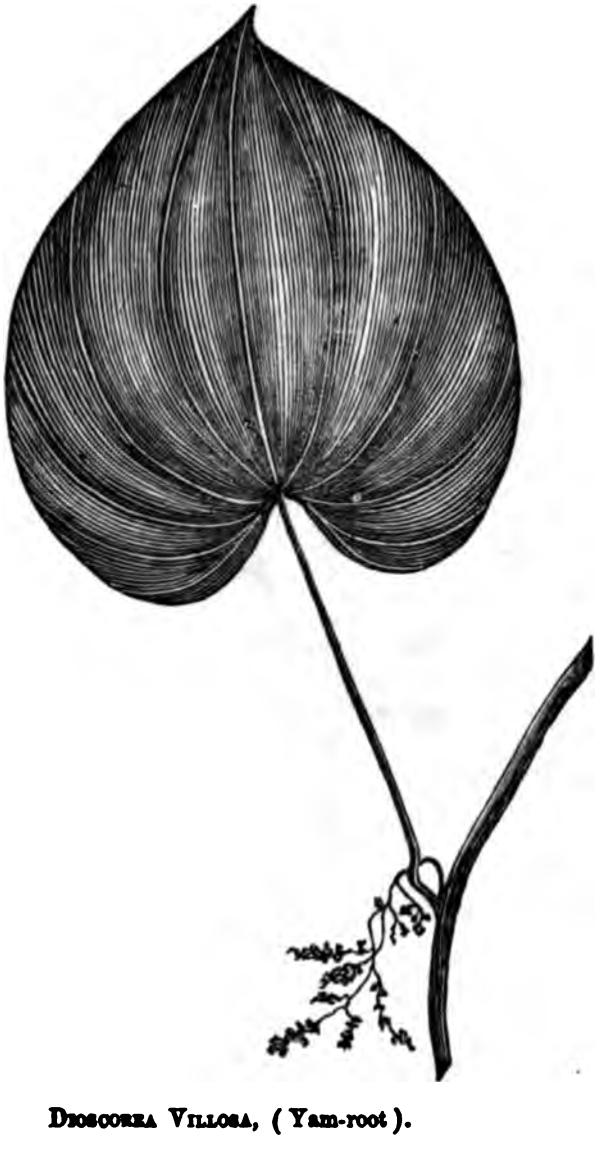
Mentha Piperita, (Peppermint).





Myrica Gale, (Sweet Gale.)





Dioscorea Villosa, (Yam-root).

covering up the disagreeable taste of other medicines, and in preventing the griping effects of cathartics. It is commonly used in infusion. The dose of the powdered leaves is a tea spoonful, to a teacupful of hot water, and repeated according to circumstances. The essence is taken in tea spoonful doses.

MYRICA GALE.

Sweet Gale, Dutch Myrtle.

Description. — A branching shrub, three to four feet high, growing in the Northern States and Canada. Leaves narrow at their insertion, toothed at the outer end; they are of a dark green color above, paler beneath, with a strong midvein. Staminate and pistilate aments on separate plants. The fruit and leaves, when crushed, have a spicy odor.

Medical properties and uses. — The leaves and fruit of the sweet gale are aromatic and stimulant, and are much employed in some sections of the Northern States. An ointment or infusion made of the fruit will cure the itch in a few applications.

DIOSCOREA VILLOSA.

Yam-root, China-root.

Description. — Root perennial, woody, tortuous, with numerous spiny protuberances; stem, an annual climbing vine; leaves on long footstalks; they are large, cordate, and near the ground they are arranged in verticilate clusters around the vine; but higher up they are alternate. The flowers are white, very small, and are arranged on little peduncles, which come out just above the leaves. Grows plentifully in the Western States in rich soil.

Medical properties and uses. — The dioscorea is stimulant, diaphoretic, and expectorant. It is particularly serviceable in bilious cholic, and has gained great reputation in the hands of several practitioners in the West for its powers as a remedy in this disease. An ounce of the powdered root is boiled in a pint of water, and given in two or three doses.

LIATRIS SPICATA.

Colic-root, Button Snake-root, Devil's-bit.

Description.—Root perennial, tuberous, ovate, abrupt, beset around the base with many very fine fibres; it is aromatic, having somewhat the taste of turpentine. Stem round, about three feet high, bearing a spike of scaly purple-colored blossoms, bearing in the aggregate a resemblance of an acorn. The leaves are linear, or sword-shaped, somewhat resembling the leaves of young corn. It is found in prairies and open woods in the Western States.

Medical properties and uses.—The liatris is an aromatic stimulant, diaphoretic, diuretic, anodyne, and carminative, particularly useful in colic, backache, and flatulency.

SINAPIS.

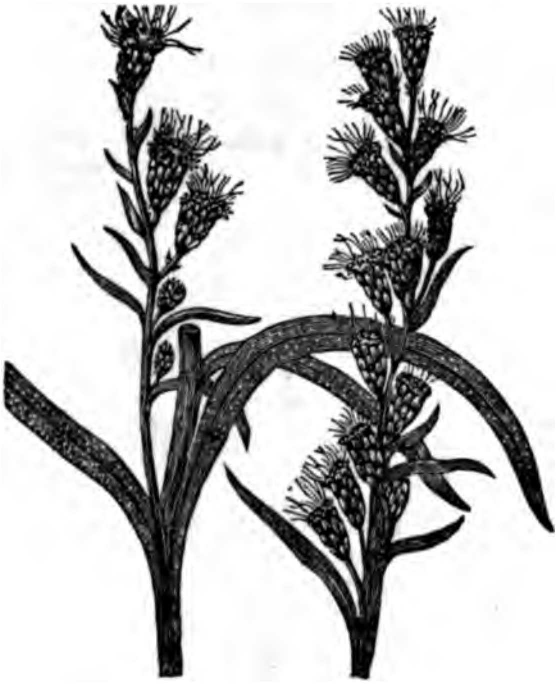
Mustard.

Description.—The mustard plant is a very common annual domestic herb. It grows from two to five or six feet high, and has a bushy top, which in its season is covered with yellow blossoms. These are succeeded by the seed-pods, which are smooth, tapering at both ends, and well charged with little globular seeds.

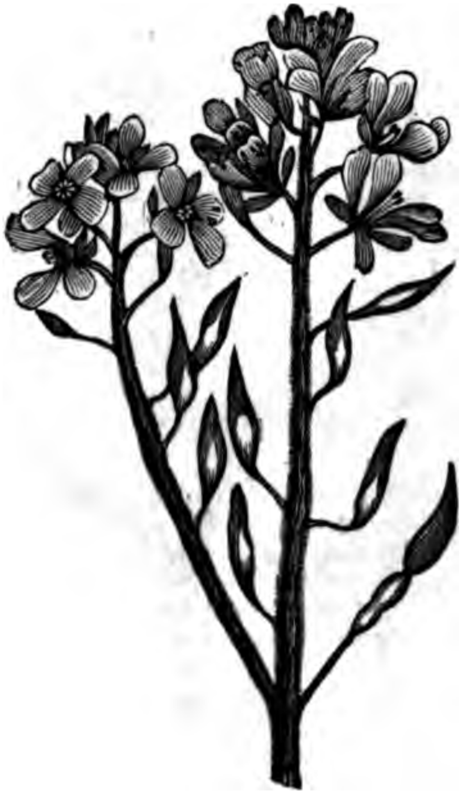
Medical properties and uses.—Mustard seed is a very acrid stimulant and rubefacient. It is also emetic in large doses. Its chief employment is as a rubefacient or revulsive. When moistened and applied to the surface, it occasions great irritation, and even vessication. It is, however, not necessary to produce blistering to prove its good effects in this way.

SPEARMINT, (*Mentha Verides.*)—This article possesses properties, as a stimulant, very analogous to the peppermint, and may be used in its place. It is also valuable as a diuretic and vermifuge.

CINNAMON, (*Laurus Cinnamomum.*)—This is an agreeable aromatic stimulant, possessing considerable power as a stomachic and carminative. It is generally used



Leatris Spicata, (Colic Root).



Sinapis Alba, (White Mustard.)

as an ingredient in medical compounds, but may be employed alone as a warming medicine for the stomach, to allay nausea, or to correct flatulency. It forms a valuable ingredient in tonic compounds, and in preparations for the cure of diarrhœa, &c. The pulverized bark, or the essence, may be used in tea spoonful doses.

CLOVES, (*Caryophyllus Aromaticus.*)—This is an aromatic stimulant, and is much employed in medicinal compounds. Used alone, it is of service in flatulency, colic, nausea, and faintness. It is extensively used as an ingredient in diaphoretic preparations. The dose is a small tea spoonful.

DITTANY, (*Cunila Mariana.*)—Dittany is a valuable stimulant, tonic, nervine, and aromatic. It is highly esteemed in some parts of the country, in domestic practice, for the relief of headaches, colds, fevers, hysterics and other complaints, where a stimulating diaphoretic would be proper. The advantage in the use of this medicine, is that while it is an active remedy, it is at the same time very pleasant to be taken.

HORSE MINT, (*Monarda Punctata.*)—This is an indigenous plant of considerable value as a stimulating diaphoretic, and is said also to possess active diuretic properties. The horse mint, combined with other stimulants, may be used as a change in cases of protracted illness, where stimulants are required for a considerable time.

WILD MARJORUM, (*Origanum Vulgare.*)—As an active stimulant, the wild marjorum is inferior to few of our indigenous herbs. The dried leaves may be used freely in infusion, or the essence may be taken in tea spoonful doses. The oil is an excellent rubefacient.

SASSAFRAS, (*Laurus Sassafras.*)—The bark of the root of this article, is stimulant and antiseptic. It is, however, chiefly used as an external application, in the form of a poultice, for mortification, foul ulcers, king's-evil, &c. The oil is an active rubefacient.

Turpentine, and the oils of rosemary, hemlock, origanum, pennyroyal, &c., are all excellent stimulants and rubefacients.

II. TONICS.

Tonics are medicines which give vigor and tone to the system, without increasing the heat of the body, or as a general thing, materially exciting the pulse.

It has been supposed, by Cullen and others, that the tonic power of medicines depends upon their bitterness; and at first thought, this idea would seem to be correct, as it is a fact that nearly all our best tonics are extremely bitter substances. Yet it is established by experiment, as well as by observation, that some articles that are but slightly bitter, are, nevertheless, very good tonics; and on the other hand, there are some again that are very bitter, and yet are of but little value as tonics. Aloes and opium, for instance, are both intensely bitter, but are by no means proportionably tonic in their effects; while iron is powerfully tonic, and has no bitterness.

Tonics are indicated in nearly all cases of debility, and are ever serviceable to restore the patient after the force of disease is broken up. In intermittent and remittent fevers, it is almost impossible to succeed without the use of these agents; and the treatment of most other diseases is imperfect without them.

The application of this class of remedies has not been so particularly pointed out in the part treating on practice, excepting in those cases in which the tonics are indispensably necessary; for it was supposed that the practitioner, once learning their general application, could not fail in discovering readily all the indications for their use.

It is important to bear in mind, that when the use of tonics requires to be long continued, as in some chronic complaints, it is necessary to change the agents employed, so as not to use the same article too long at a time. The system becomes accustomed to their influence, so that after a week or two their power will be apparently exhausted, while other articles of the same order will have their full power. After any article is discontinued for a time corresponding to that in which it had lost its power, and is then again resumed, it will act as a new agent.

Experience has long since proven a marked dissimilarity in the quality and power of the impression that the different articles of this class are capable of producing upon the system. The most remarkable of these is the peculiar anti-intermittent power that characterizes a few of our tonics.

The principle upon which this singular impression is produced, and by which is broken up the chain of morbid association, and thus every variety of periodic disease is at once arrested, is something more than can justly be attributed to tonics in general. It is supposed that, in the intervals of these complaints, there is an unobservable train of morbid associations going on within the recesses of the nervous system; and that, in like manner, the remedies here to be considered, may display their influences upon these tissues. One thing is very probable, at least: the periodicity of action that characterizes the former, is very intimately associated with the condition of the nervous system; for besides the fact that many of the physiological movements are essentially periodic, and that in consequence, the resistance opposed by nature may be thus periodically exerted, it is farther evident, that the nerves are much implicated in the morbid phenomenon, from the fact that by a sudden excitement of them the character of the symptoms may be materially modified, and, indeed, a paroxysm may be thus sometimes completely broken up. We have instances of this kind in the effects of anger, sudden joy, or, indeed, any other passion suddenly excited.

The articles of this order seem to exert a peculiar tonic power over the nerves, by which they effect their specific influence. This power is by no means dependent upon the bitterness of the agents employed, as we find other substances which possess no bitterness whatever, are nevertheless actively anti-intermittent. Still, however, we find that bitter and astringent vegetable substances abound most with these virtues. It is often the case, when the ordinary agents of this order, as quinine, &c., fail to produce their usual effects, that the latter are fully developed on combining with them an active astringent principle; and hence it has been a common practice with some physicians, to combine their bitter tonics with active astringent tonics, when they were exhibiting them against ague.

It may be proper to remark here, that the articles of this order of tonics are not confined in their application merely to intermittent fever, but are almost equally serviceable in all forms of disease which are characterized by periodicity of action, or which come on in regular paroxysms! Thus, anti-periodics have been successfully exhibited against some cases of remittent fever, epilepsy, chorea, hemicrania, periodic pains of the eyes, face, and other parts of the body, as neuralgia, &c. The nearer any form of disease approaches to the character of a regular periodic, the more certain will be this order of tonics to effect their cure. Moreover, in addition to this extension of their application, we find that they are fully equal to the common tonics in all other cases in which this class of remedies are indicated.

CINCHONA.

Peruvian Bark.

The Peruvian bark is obtained from a great number of different species of the cinchona genus. But they are generally described as being trees or shrubs, growing from ten to forty, or perhaps fifty feet high, with a trunk from a few inches to some three or four feet in diameter. Some of the species furnish very beautiful forest trees, being well proportioned and handsome in appearance. "The leaves are opposite, upon short petioles, with flat margins, and are attended with ovate or oblong, foliaceous, free, deciduous stipules. The flowers are terminal, in corymbose panicles, and of a white or purplish rose color."

Locality and habits.—The cinchonas are natives of South America, abounding in the republics of New Grenada, Equador, Peru, and Bolivia. They seem to delight in mountainous places, being principally found on the Andes, at an elevation of from 1200 to 10,000 feet.

The amount of this bark annually exported from the various ports of South America is truly enormous; and when it is considered that the *cascarilloes*, or bark-

Cinchona Condaminea, (Peruvian Bark Tree).

peelers, give but little attention to the probable destiny of the production, and that the most wasteful practices are followed, when they are likely to save present inconvenience or labor, or promote the profitableness of their business, it is not astonishing that the government of Bolivia should put restrictions on the exportation of the drug, from an apprehension that the trees yielding it might become extinct.* Many who are acquainted with the commerce of this drug, and the circumstances of its collection, are of opinion, that unless the governments will provide for the preservation of the trees, they will all be destroyed before the woodlands will be taken up and become personal property. An English author states that some dealers in Europe are now laying up large stocks of the drug on the speculation that the forests containing the Yellow or Calisaya bark, are already about exhausted of this tree.

Description. — Cinchona, like other barks, consists of three different parts, or structures, — the *epidermis*,† or most external portion, — *rete mucosum*, or cellular layer, and *cutis vera*, or cortical layers. Sometimes the bark is brought to us divested of its outer layers, when it is called *uncoated bark*. These outer layers are of a whitish or grayish color, but vary according to the varieties of the bark; they are smooth, wrinkled, furrowed, or cracked. The cutis vera, which is the second, and, indeed, the principal portion of the bark, consists of a series of layers which are formed at the rate of one a year, but after some years, lose their life gradually from without, so that this portion keeps about the same thickness. The innermost layer, termed the *liber*, which is the product of the last year's growth, is generally the most valuable; but all these layers, except the outer, are possessed of the medical virtues, and are used together.

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* The cutting of cinchona trees in Bolivia, was prohibited by that government, for five years, commencing January 1, 1838.

† The term *epidermis*, as applied to this bark, has been differently understood by medical men; but is generally defined to mean the external or lifeless portions of the bark, which consists of an uncertain number of layers, which increase one in number annually by the outer layer of the cortical portion losing its life, while a new layer, or *liber*, is formed next to the wood. This increase of layers, after the bark has attained a certain age, is modified by the decay from without; so that the epidermis of a given species is usually of nearly a uniform thickness after the bark has commenced to decay or wear away from without.

The bark is usually more or less quilled, but is sometimes flat. "The absence of the curl arises from one or two circumstances — the age of the stem from which the bark is taken, or the want of flexibility of the bark even in the fresh state. When the bark is rolled cylindrically in a quilled form, it is termed *quilled bark* (*cinchona tubulata*). Bergen speaks of several kinds of quilling, namely, the *partially quilled* (*cinchona sub-convoluta*,) when the edges of the quill approximate; the *closely quilled* (*cinchona convoluta*,) when the edges of the quill overlap each other, forming a more or less closely rolled-up tube; and the *doubly quilled* (*cinchona involuta*,) when both edges of the quill are rolled together so as to form two cylinders, but which, seen from the back, appear as one."

The transverse fracture of the bark is either smooth, resinous, or fibrous; that producing the resinous fracture is usually preferred.

The color, taste, and smell of the different varieties differ so much, that no definite account of them can be given.

Classification. — It has already appeared that the bark is divided into very many different varieties. These are in part founded on botanical characteristics; partly on the physical properties and medical qualities of the bark itself; partly in reference to the ports from whence the bark is brought; and, finally, some are arranged according to their chemical characteristics.

It is obvious, however, that in the present state of things, no classifications of the barks can be successfully adopted, except that founded on the physical characteristics of the bark itself. As there are no other parts of the tree accompanying the bark, the latter can not be traced to the species from whence it was derived: and the ever varying aspects of the bark will not admit of the discrimination necessary for practical use, were the relations between the species and their products even well determined.

In the United States' Dispensatory the barks are all classed under four heads: the *Pale*, *Yellow*, *Red*, and *Carthagena barks*.

Under the epithet *pale* (which is derived from the color of the powder,) the Dispensatory embraces the *Loxa* and *Lima*, or *Huanuco bark* among the most important, and the *Jaen* and *Huamilies*, among those less so. The finest kinds are about the size of a quill, rough exteriorly, marked with circular, and occasionally with longitudinal fissures, and of a grayish color, owing to the lichens which envelop the epidermis. The shade, however, differs; being sometimes of a light gray, or nearly white; while at others, it is of a dull brown, and is often spotted by patches of lichen. The inner surface is smooth, but in the coarser kinds it is often rough and ligneous. Its natural color is of a brownish orange, varying to red or yellow. The fracture is usually clear, sometimes somewhat fibrous on the inner surface. The taste is moderately bitter and somewhat astringent, but not disagreeable or nauseous. The superior kinds are said to have a feeble odor, which is aromatic, and observable in the powder and decoction. The pale barks contain but comparatively little quinine, but yield a better proportion of cinchonia, an alkaloid principle analogous to quinine. This variety is but little employed when the others can be had.

Yellow bark is the epithet intended to be applied only to the best varieties of the bark of this color. In commerce it is commonly called *calisaya*. Druggists arrange this variety of bark into two divisions, the *quilled* and the *flat;* they sometimes come separate, but often mixed in the same ceroon. It would seem, from their appearance, that they are produced from larger, or older branches, than the paler varieties. The quilled variety of the *calisaya* occurs in pieces from a few inches to a foot or more in length, and from a quarter of an inch to some three inches in diameter, varying as much also in the thickness of the tissue. The epidermis is of a brownish color, often covered, and generally spotted with white lichens. In larger kinds of the bark the epidermis is thicker, rough, traversed by deep fissures. It is easily separated from the true bark, makes a dark, insipid, and worthless powder, and should always be separated from the bark before the latter is pulverized. The *cutis vera*, or real bark, when divested of its epidermis, is of a brownish-yellow color, with an orange tinge. In thickness it is from one to two lines; its texture is fibrous, and when broken presents shining points, which seem to be the points of fibres running longitudinally. These spiculæ are of rather a firm consistence, yellow and transparent; they separate on pulverizing the bark, and floating in the air, they insinuate themselves into the skin, like cow-itch, producing a disagreeable smarting and itching. It is said that the external part of the bark is more bitter and astringent than the other portions (perhaps the *liber* should be excepted.) The bark is much more bitter, and less astringent, than the *pale bark*, by which it may be distinguished when the bark is small, in which case it, in color, much resembles the latter. The yellow bark is the most valuable of all.

Red bark is readily distinguished by its color, being distinct both in the bark and its powder. It is of a lively brownish-red. The bark is larger and thicker than the yellow, and appears as if it were taken from the larger branches, or trunk, of the tree. The epidermis is rugged, wrinkled longitudinally, and in thicker pieces, marked with furrows, which occasionally penetrate to the cutis vera. Sometimes numerous small eminences, or warts, are observed on the outer surface. The outer layers of the cutis vera are darker colored, more brittle and compact, but less bitter and astringent than those nearer the wood. The innermost layers are ligneous and fibrous, of a more lively brownish-red, but sometimes inclining to an orange, or even yellowish-brown color. The taste and smell much resemble those of the yellow bark. It ranks next in value to the *yellow*.

Carthagena bark, though a regular commercial name, is not applied to a single variety of bark, but is a general name for all the barks that are exported from Carthagena, or other northern ports of New Grenada, as Santa Martha, Rio Hacha, and Maracaybo. These barks are characterized by a soft, whitish, or yellowish-white, micaceous epidermis, which is easily disengaged, and is often almost completely removed; yet there is generally enough remaining to indicate its character. These barks are produced, likewise, in more remote parts of South America, but as they are of comparatively little value, they would not pay transportation from the western coast; and it is not probable that they will ever be imported into this country from the parts whence the yellow and red barks are derived, while the latter can be procured with equal convenience.

Medical properties and uses. — Cinchona without doubt is the best tonic known to the profession. There is no other article, in reference to the therapeutic value of which, there is such a uniformity of opinion in the general profession. All accord to it the first place in the list of tonics.

What so eminently distinguishes the present article above the others of this class, are its remarkable anti-periodic virtues. These are so certain and uniform in their effects, that they have gained for the medicine the character of a specific for ague. Many articles have been proposed as substitutes, but none have proved successful competitors. The medicine has now sustained its high character for a full century in Europe and the United States; and scarcely for one other — perhaps not one — can this be said. All have had their fluctuations.

Cinchona alone fully establishes the order of anti-periodic or anti-intermittent tonics; perhaps no other article now known could have done it. The medicine will seldom fail of giving satisfaction, if properly used. But it is often given without due attention to the circumstances which alone can insure success. In fevers, as a general rule, the medicine should be preceded by an emetic, and sometimes by a cathartic. Attention ought also to be paid to the state of the skin. If this be free, it will always answer to give the tonic, so far as the single question concerning the circulation is concerned.

Enough of the medicine should always be given to produce a decided impression upon the system in the outset. When the paroxysms are broken up, the doses may be modified, but must still be continued until the patient is restored to his usual strength. If this particular be unattended to, a relapse may take place; as it is very difficult in all periodic forms of disease, to break up completely the chain of morbid associations, which circumstance is evinced in *epilepsy*, &c., as well as in ague.

If from four to six drachms of the bark, or thirty grains of quinia are administered and retained in the system, for from three to six hours before the accession of the chill, the ensuing paroxysm may be prevented, and thus the disease may be cut short at once. But it often happens that there is not sufficient time, after the commencement of the treatment, to admit of the development of the constitutional effects of the medicine before the chill or paroxysm comes on. In such cases, therefore, it is of little avail to attempt an effort to prevent its occurrence. The object, then, must be to take advantage of this start upon the next ensuing paroxysm, which may be obviated with an almost absolute certainty. The author does not recollect of a failure in his practice for many years, when he had so much of an advance upon the disease.

The medicine is best administered during the intervals between the paroxysms of the intermittent, as it will then agree better with the stomach, and is more likely to be effectual. It is certain, however, that the idea of its being dangerous when administered during the presence of a paroxysm of an intermittent, is not founded on deductions made from observation, but is rather to be referred to the speculative theory that stimulants and tonics are always absolutely *inadmissible* in febrile affections. The bark has, in innumerable instances, been given in every stage of the paroxysm with decidedly beneficial results. Many practitioners, especially in the Western States, are in the general habit of giving large doses of quinine at given intervals, without any reference to the paroxysms, and they continue the use of the medicine until the disease is completely broken up.

Although the most extensive use of cinchòna is appropriated to the treatment of intermittent fever, yet the medicine is of great avail in all other periodic forms of disease. Remittent fever, periodic neuralgia, some cases of epilepsy, hemicrania, periodic pains in the eyes, face, and other parts of the body, and even hectic fever, have all been successfully treated with the Peruvian tonic. Nor is it necessary that the intermissions should always be complete, for we find that in remittent fever, when there is but a very indistinct apyrexia, the medicine is, nevertheless, generally quite available. Indeed, the author is inclined to think that the profession have not given due attention to the applicability and power of this article in remittents. Although it cannot be expected that a remittent can be controlled with the same ease and certainty of success as an intermittent may, yet it is questionable whether the use of cinchona may not be available here in a proportionable degree.

It should not be forgotten that cinchona, and all its preparations, though chiefly valued for their anti-periodic virtues, are, nevertheless, equally as good and available, when used as a common or simple tonic, as any other article of this class. Hence, the medicine is very extensively employed; and were it not for its being more expensive than most of our indigenous tonics, and that it is rather more unpleasant to take than many of the latter, it would be used still more to their exclusion.

The author has used some of its preparations topically, especially the quinine and extract, to great advantage. He cured a case of palsy by the application of a liniment made of quinine and the alcoholic extracts of lobelia and capsicum, which had exhausted the skill of some six or eight eminent physicians.

It is not in place here to go into a lengthy detail of the particulars that relate to the application of this medicine. A few remarks more on this subject must suffice. When there is no objection to taking it, and the stomach bears the medicine in quantities sufficient, it is generally best to give it in substance, as its effects are rather more certain when exhibited in this way. But at the present time, its alkaloids and extract, but particularly the *disulphate of quinia*, (*quinine*), have almost entirely superseded the use of the bark in substance. The quantity of bark necessary to the cure of ague, is from one to two ounces, taken in doses of one drachm every few hours. Doses so large, however, are generally objectionable; and as several of the preparations are sufficiently certain in their effects, they are generally preferable. The extract, when properly prepared, is rather better than the quinine, or any of the alkaloids or salts of cinchona; but it sometimes proves nauseous.

In cases of irritability of the stomach, or other inconveniences in which the bark cannot be taken by the mouth, it may be exhibited by other means, as by enema; or the alkaloids, or extract of it, may be used on the iatroleptic plan. When given by injection, or when applied externally, it must be used in much larger quantities than what are necessary to be taken into the stomach. Numerous cases might here be reported of its success, when used in the ways just spoken of. The most obstinate intermittents have been known to yield to the external application of some of the alkaloids, particularly quinine.

The dose of the bark is from one to two drachms repeated three times a day; that of the quinine is from five to ten grains three times a day.

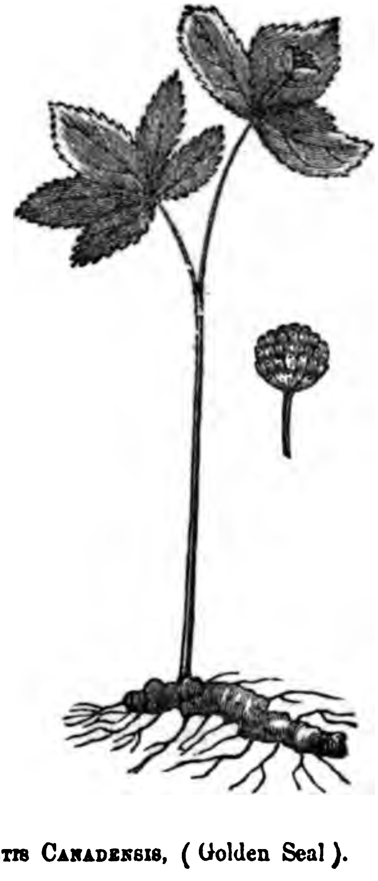
The quinine generally operates better when conjoined with an astringent.

CORNUS FLORIDA.

Dogwood.

This is a small tree growing throughout the United States. It has an extremely rough bark externally, which is reddish within. It generally attains to the hight of twenty feet, or more, with crooked, spreading branches; the small ones of which bear the marks of the old leaves. The leaves are opposite, ovate, lanceolate, serrate, and of a pale color beneath. It flowers early in the spring, and bears oblong red berries, disposed in clusters.

Medical properties and uses. — The dogwood is tonic, astringent, stimulant, and like many other articles of the class, antiseptic. As a common tonic it is second to none, and excelled only by cinchona as an anti-periodic. Although it is actively astringent, there is no danger of producing constipation of the bowels by its use, but it, on the contrary, often produces a laxative effect, especially when fresh. It has long been employed as a substitute for Peruvian bark, the action of which it very much resembles, and from which circumstance it has received the name American Cinchona. It is useful in all cases where tonics are indicated, and especially serviceable in leucorrhœa, prolapsus,



Hydrastis Canadensis, (Golden Seal).

dyspepsia, liver complaints, &c.; but its most striking effects are observed by its employment in fevers. It has heretofore been recommended to be used in decoction; but it is evident that it does not readily yield its properties to water, for the watery extract is nearly inert, and by this circumstance the medicine has, in a great measure, fallen into disuse. In fevers of the sthenic character, none of its preparations are proper, but in those of a low character, they are particularly indicated. In intermittents, the finely pulverized bark may be given in 25 grain doses, repeated every two hours, between the paroxysms; but the alcoholic extract, in from 5 to 10 grain doses, is entirely the best form in which to use it.

HYDRASTIS CANADENSIS.

Golden Seal, Yellow Puccoon.

Description. — This is an indigenous plant, with a yellow perennial root an inch or more in length, contorted, irregular, and giving off quite a number of very yellow fibres. The stem is round, hairy, from six to twelve inches high, and generally divided at the top into two petioles, of unequal length. The leaves, which are one or two in number, are lobed or palmate, unequal, serrate, and somewhat resemble the leaf of the maple tree. It bears a single terminal, flesh-colored flower.

Locality and habits. — Golden seal is found principally in the States west of the Alleghany mountains, growing in forests, at the foot of hills, or in valleys, always preferring a rich soil.

Medical properties and uses. — This is an excellent bitter tonic. It seems to have a peculiar effect upon the stomach, promoting its healthy functions, removing indigestion, and relieving the disagreeable sensations which the use of food frequently produces when the digestive organs are impaired. It also acts upon the liver, regulating its secretion, and by this means promoting a healthy condition of the bowels. It may be employed with advantage in intermittent and remittent fevers, jaundice, worms, colic, faintness or weakness at the stomach, &c. The infusion forms an excellent wash for sore eyes, and in this form it is a valuable application to old sores. For internal use it may be taken three or four times a day, in the form of powder, in tea spoonful doses in warm water sweetened — repeating the doses as the symptoms may indicate. The infusion may be used if preferred. The root is the part employed in medicine. The alcoholic extract (hydrastin) is the best form of its use. The dose of this is five grains. It is one of the best remedies for chronic dysentery that can be used.

FRASERA VERTICILLATA (CAROLINENSIS.)

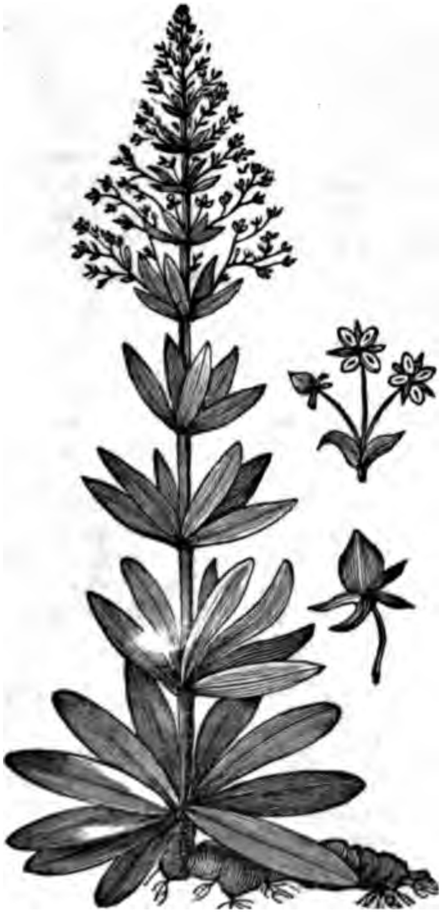
American Colomba.

Description. — Root triennial, long, fusiform, yellowish, branched and fleshy. Stem solid, smooth, erect, round, and from five to ten feet high. Leaves of a deep green color, entire, sessile, glabrous, and disposed in whorls, commencing at the root and ascending to the summit with regularly diminishing intervals, and becoming smaller as they ascend. The lower leaves are oblong, and lanceolate; the upper ones, lanceolate and pointed. The radical leaves, from five to twelve in number, are procumbent, elliptical, and obtuse. The flowers are yellowish-white, numerous, forming a large pyramidal terminal panicle, a foot or more in length.

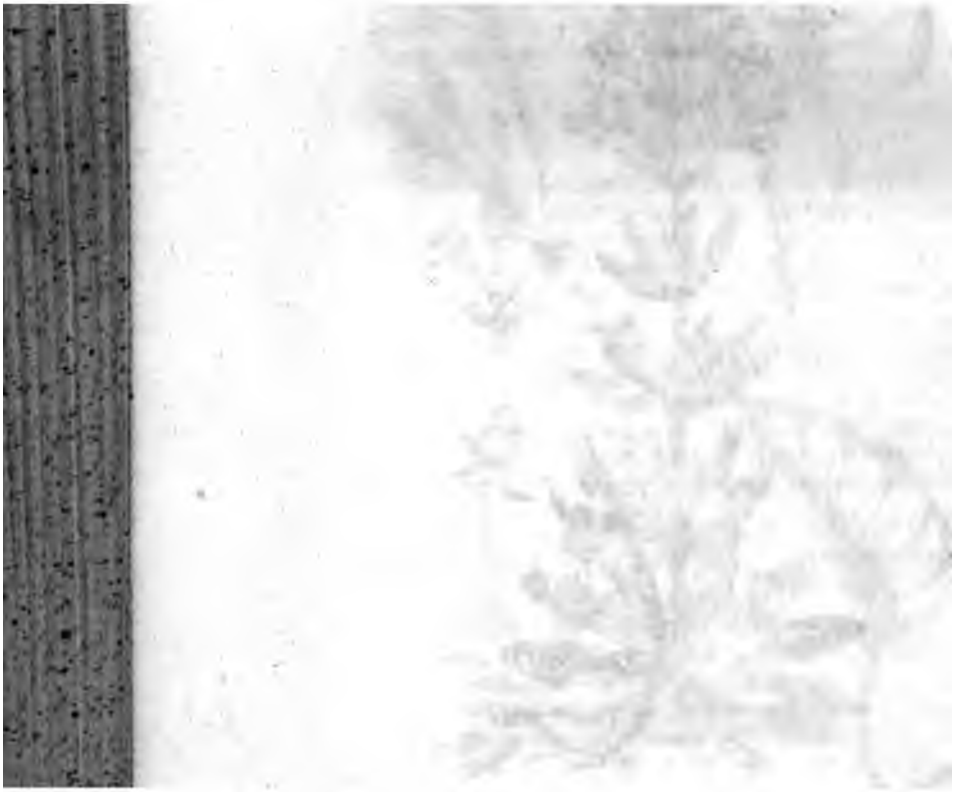
Locality and habits. — This plant is found in all parts of this country, — excepting the regions east of the Alleghany mountains, — growing in open woodlands, in sandy soils, and in meadows.

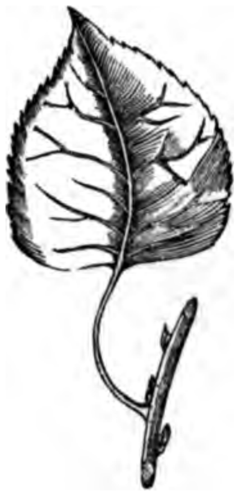
Medical properties and uses. — The colomba root, when dried, possesses valuable tonic properties. It is also laxative, and antiseptic. In cases of debility arising from indigestion, it generally affords relief. It may also be employed with advantage in colic, nausea, diarrhœa, and to remove the disagreeable sensations, produced by food, common with dyspeptics. As an antiseptic it may be used internally by infusion, — externally in decoction, or in the shape of a poultice.

For internal use, the dose is a tea spoonful of the powdered root, in warm water. The fresh root is emetic and cathartic.

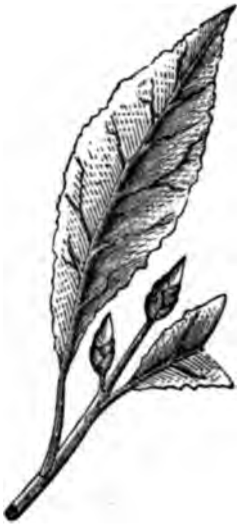


Frasera Carolinensis, (American Columbo).

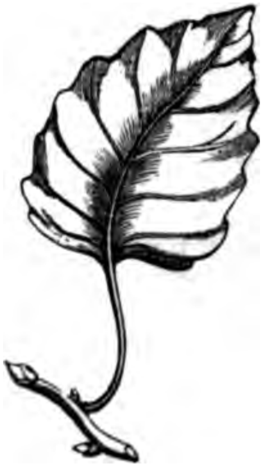




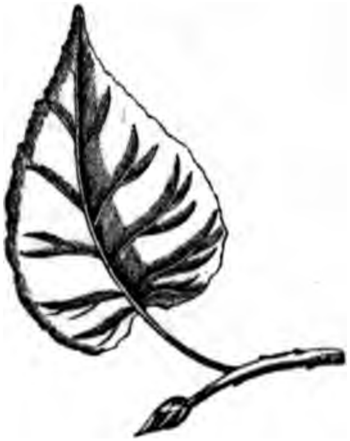
Populus Tremuloides.



Populus Balsamifera



Populus Grandidentata.



Populus Candicans.

TRIOSTEUM.

Horse Gentian.

Description.—There are several species, and many varieties of the triosteum, all having a pretty close resemblance to each other, and generally possessing nearly the same medical properties. The yellow, however, is the kind that is mostly used by the reformed practitioners. This plant has many long spindle-shaped roots, which have a thick fleshy bark, and woody centre. The stalks, which are from six to twelve or more in number, are somewhat reclining, and about two feet in hight. The leaves are oblong, smooth, entire, and in some of the species perforated by the stem. The flowers are axillary to the leaves, and are followed by beautiful, oblong, red berries, crowned with the calyx.

Locality and habits.—The triosteum may be found in nearly every section of the United States, usually choosing dry soils, road-sides, old fields, and commons.

Medical properties and uses.—The root of this plant constitutes one of our most valuable bitter tonics,—is also stimulant, alterative, laxative, and in large doses cathartic. Perhaps no single article in the materia medica will produce better and more permanent effects in the cure of liver affections than this. The most doubtful cases have been known to yield to its powers in a comparatively short time, even after the skill of the doctors had been exhausted to no purpose.

It promotes digestion, relieves heart-burn, will correct a costive state of the bowels, and may be used successfully in all cases where a bitter tonic is proper. It also exerts a soothing effect upon the lungs, and is a valuable auxiliary in the treatment of pulmonary consumption.

A tea spoonful of the powdered root may be taken at a dose, and repeated three or four times a day, according to circumstances. Double the dose will prove cathartic. It may be employed also, and rather more conveniently, in the form of the alcoholic extract.

POPULUS.

Poplar.

Description.—There are a number of species of the poplar family, differing considerably in their appearance; most of them, however, possessing nearly the same medical properties.

The *populus tremuloides*, or American aspen, sometimes called quaking aspen, is, however, the only species much employed in medicine. This is a very beautiful forest tree, growing to a considerable hight. The bark on the young tree is smooth, and white. The leaves are cordate, ovate, lanceolate, entire, serrate, of a deep green above, pale underneath, prominently veined, and are supported on long slender petioles.

Locality and habits.—The quaking aspen is found in most places throughout the United States, but is, perhaps, most abundant in the Northern and Middle States. In some places it grows in groups or patches, about springs, and rocky places.

Medical properties and uses.—The inner bark of this tree is a pleasant and pure, yet powerful bitter tonic. It is useful in all cases of debility, especially in debility of the digestive organs. As an ingredient in tonic cordials, it is invaluable.

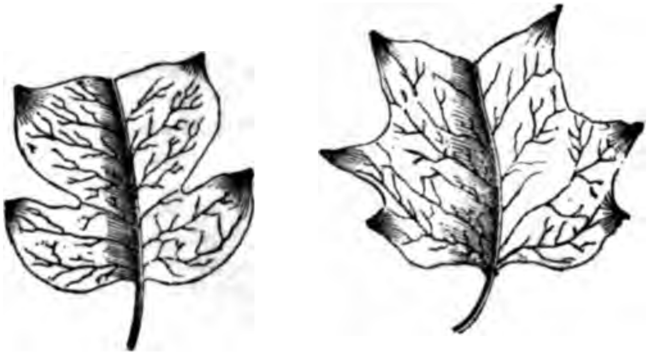
Poplar bark is very agreeable to the stomach, and is therefore generally preferred when the continued use of tonic remedies is required. As the medicine very readily yields its active properties to water, it is unnecessary to use it in substance. A tea spoonful of the fine bark may be scalded in a pint of water, and after sweetening it with white sugar, may be drank through the course of a day.

LIRIODENDRON TULIPIFERA.

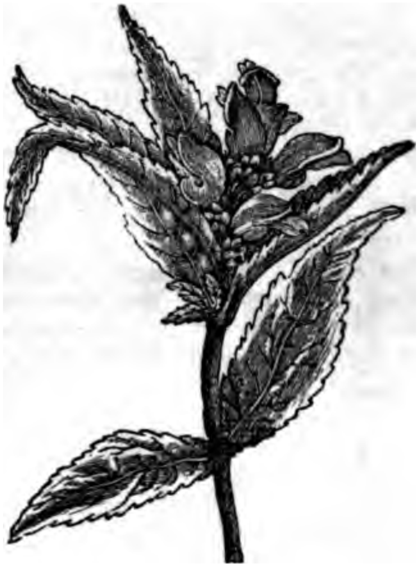
Tulip Tree; Yellow Poplar.

Description.—A well known forest tree of large dimensions. When young its bark is smooth, but when old it is very rough. Its leaves are large, three-lobed—the upper or end lobe is truncated, and sometimes the side ones are so likewise. The flowers are tulipiferous, large and beautifully variegated with different colors, the red and yellow predominating.

Medical properties and uses.—The inner bark of the root and trunk of the tulip tree is tonic stimulant, nervine and anthelmintic. It is taken in the form of



Liriodendron Tulipifera, (Tulip Tree).



Chelona Glabra, (Balmony).

30

infusion or powder. The decoction and extract are of little value, as the virtues are dissipated by heat to a considerable extent.

CHELONE GLABRA.

Balmony; Snake-head; Turtle-bloom.

Description. — Balmony has a perennial fibrous root, which sends up annually a number of erect, smooth, round-cornered, square stems, from two to four feet in hight, and occasionally branched at the top. The leaves are opposite, lanceolate, acute, entire, serrate, green in the fore part of the season, but becoming speckled with a white mould or dust early in the fall. The flowers, in some varieties, are white, in others purplish, and of a very singular shape, somewhat resembling a snake's head with the mouth open. They are disposed in clusters axillary to the leaves, and in terminal racemes.

Locality and habits. — The balmony is an indigenous plant, growing in wettish places, along streams, in meadows and pasture grounds. It is common in most of the States. Its flowering time is in July.

Medical properties and uses. — All physicians agree in considering this article among our purest bitter tonics, and as such may be used in all cases in which articles of this class are indicated. The dose is from ten to twenty grains of the pulverized leaves. The medicine is considerably used in tonic compounds.

CROTON ELEUTHERIA.

Cascarilla.

Description. — The shrub that produces the cascarilla bark, it is said, grows from four to twenty feet in hight, and is much branched at the top. The leaves are ovate, cordate, lanceolate, elongated toward the apex, entire, bright green above, and stand alternately, on short petioles. The flowers are whitish, and are disposed in axillary and terminal racemes.

Locality and habits. — This shrub is found growing wild in the West Indies, especially in the Bahamas and in Jamaica.

Medical properties and uses. — The cascarilla bark is a very pleasant-tasting aromatic bitter tonic, and has been substituted for cinchona, but is not so efficient as an anti-intermittent as that article. Yet its very agreeable taste and smell make up, to a considerable extent, what it seems to lack in power. Its chief application is in dyspeptic habits, as a general stomachic bitter, and as a tonic in the infirmity of old age and convalescence. This is quite a favorite tonic among the Germans.

Cascarilla is a very important article in compounding bitter tonics; for while it forms a good ingredient as a medicine of this class, its value at the same time is increased by its power of improving the taste and flavor of the compounds into which it enters.

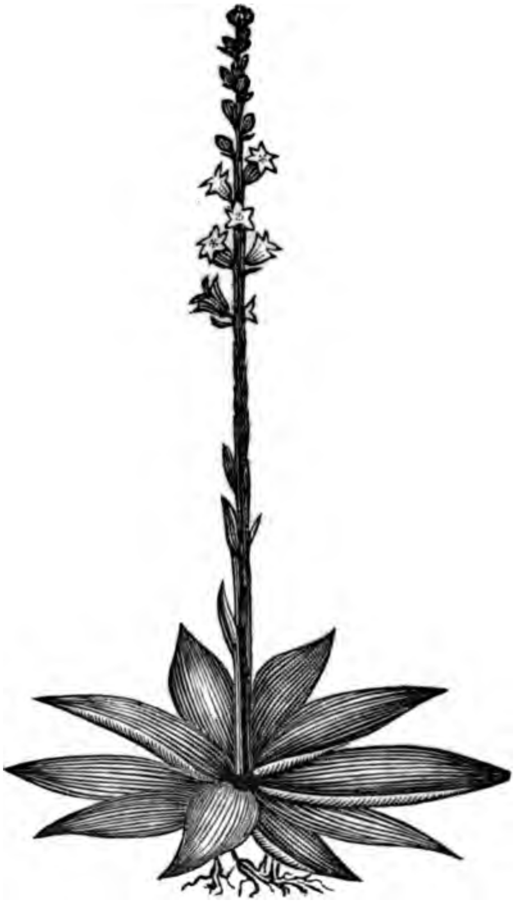
BERBERIS CANADENSIS.

American Barberry.

Description. — Barberry is a very pretty shrub, rising from four to eight feet in hight, with long bending branches, having many dots, and triple thorns. The leaves are crowded, unequal, smooth, glossy, oboval, obtuse and serrate. The flowers are slender, either nodding or pendulous, yellow, and rather small. The berries hang in loose bunches, are oblong, red, smaller and less juicy than the *berberis vulgaris*, or English barberry. The filaments possess a remarkable degree of irritability, for on being touched near the base, a sudden contraction takes place, which may be repeated several times.

It is found from Canada to Virginia, growing on mountains, hills, among rocks, and in barren soils; but is seldom met with in the Western States. The whole shrub is acid; in the berries this acid is very pleasant, but is mixed with some astringency. The bark is bitter, and of a bright yellow color.

Medical properties and uses. — The bark of the barberry is an excellent bitter tonic, and although somewhat astringent, is also laxative, and in large doses even cathartic, producing copious discharges without pain. In no case is it found to produce watery discharges, or to irritate and debilitate the bowels; but on



Aletris Farinosa, (Star-grass).

the contrary, is almost a specific in chronic diarrhœa, dysentery, and bilious fevers. It is one of our best remedies in liver complaints, attended with dyspepsia and habitual costiveness. The berries are antiseptic, acid, sub-astringent and refrigerant. They have been strongly recommended in putrid fevers.

ALETRIS FARINOSA.

Star-root, Mealy Star-root.

Description. — Root perennial, small, branched, crooked, blackish outside, brown within. Leaves radical, six to twelve in number, spread on the ground in the form of a star; they are elliptical or lanceolate, entire, with many longitudinal veins, and about three or four inches long. Stem round, erect, about one to two feet high. Flowers on a terminal raceme, tubular, white.

Medical properties and uses. — The root of the aletris is one of our best simple tonics. The virtues reside in a resin, and are obtained by tincturing in alcohol. By evaporation of this, an extract is obtained that contains the virtues. The dose is 5 to 10 grains of the powder, from 20 to 30 drops of the tincture, and 3 to 5 grains of the extract.

SABBATIA ANGULARIS.

American Centaury.

Description. — This is an annual or biennial herbaceous plant. It has a fibrous root, an erect, smooth, square stem, with branches above, and rising to the hight of one or two feet. Leaves ovate, acute, entire, smooth, opposite, sessile, and embrace half the circumference of the stem at their base. The flowers are numerous, purplish red, growing on the ends of the branches, and altogether forming a large terminal corymb.

Locality and habits. — Centaury is found in the Middle and Southern States, usually preferring low meadow ground, but sometimes growing in uplands, in woods and old fields.

Medical properties and uses. — Centaury is ranked among our most valuable tonics. It likewise possesses considerable anthelmintic properties. It may be used in dyspepsia and in all cases where medicine is needed to promote the appetite and invigorate and strengthen the general system.

The medicine has long been esteemed of value in intermittent fevers. The usual form of its preparation for that purpose, is that of bitters prepared in liquor. It may also be employed in the form of infusion, or in powder.

The dose of the powder is a tea spoonful in some appropriate vehicle.

HELONIAS DIOICA.

Star-root, Unicorn.

Description.—Root perennial, oblong, irregular, terminating abruptly, of a dirty white color, and beset with many small fibres. Leaves radical, lanceolate, procumbent, and of a pale green color. Stem from eight to sixteen inches in hight, erect, and terminating in a spike of white flowers.

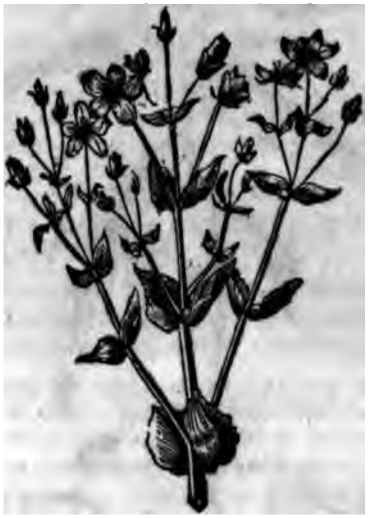
Locality and habits.—The helonias is found in most parts of the United States, growing on sandy plains, on hill-sides, in open woods, and in meadows.

Medical properties and uses.—The root of this article is possessed of tonic, nervine, and expectorant properties. It is particularly serviceable in female weakness. By some it is very much esteemed as a tonic, and by others as a nervine. It enters as a valuable ingredient into the compound called *woman's friend.* The dose of the pulverized root is from ten to twenty grains.

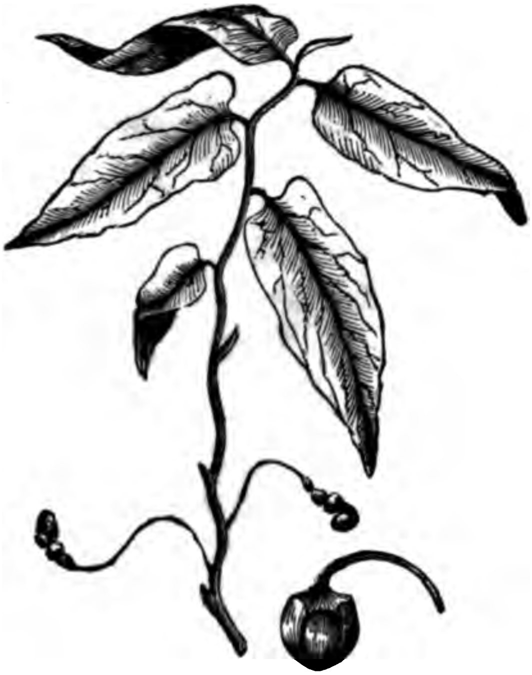
ARISTOLOCHIA SERPENTARIA.

Snake-root, Little Black Snake-root, Virginia Snake-root.

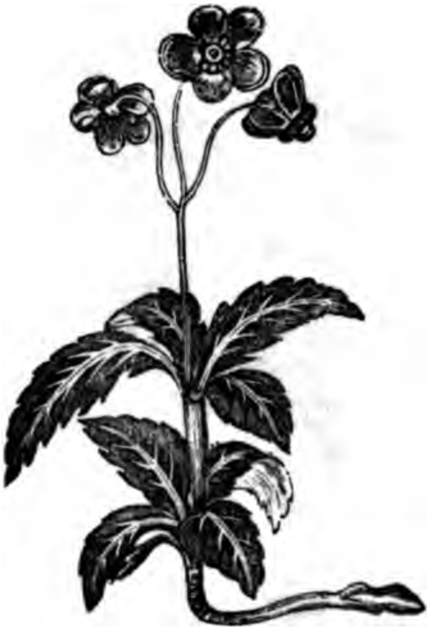
Description.—The aristolochia has a perennial, aromatic, knotty root, beset with numerous long, slender, whitish fibres. Stem crooked, round, slender, jointed, and from six to twelve inches in hight. Leaves from three to seven in number, alternate, cordate at the base, lanceolate, entire, smooth and veined. Flowers nearly radical, solitary and purplish. Capsule obovate, with six angles, and six cells. Seeds minute, and many.



SABBATIA ANGULARIS. (Centaury.)



Aristolochia Serpentaria, (Snake-root).



Chimaphila Umbellata, (Pipsisewa).

Locality and habits. — There are few parts in the United States, where the Virginia snake-root may not be found. It delights in mountainous countries, and is chiefly found in open woodlands.

Medical properties and uses. — Most authors on materia medica agree in considering this article an active tonic, diaphoretic, antiseptic, and emmenagogue. The root may be used in fevers, especially in intermittents and remittents. It is also good in rheumatism, gout, dyspepsia, general debility, &c. It is generally taken in tincture or bitters, but may be taken in substance, infusion, or pills. The latter form, perhaps, is preferable, as its exceedingly bitter taste is thereby avoided. The dose of the substance is ten grains.

MENISPERMUM CANADENSE.

Yellow Parilla, Moon-seed.

Description. — The yellow parilla is an indigenous, perennial plant. Its root is woody, round, horizontal, of a beautiful yellow color, with few fibres, very long, and generally about the thickness of a pipestem, but sometimes of the thickness of a finger. Stem a climbing vine, slender, smooth, winding, and of a brown color. The leaves are peltate, cordate, entire, roundish, smooth, and somewhat resembling the leaf of the maple tree.

Locality and habits. — Rich hill-sides, banks of streams, and hedges, are the places and situations usually preferred by this plant. It is very common in the Western States.

Medical properties and uses. — This is an excellent laxative bitter tonic, and is very useful in the treatment of dyspepsia, habitual costiveness, liver affections, diseases of the skin, syphilis, and in all cases of debility attended with habitual torpor of the bowels.

As a bitters to be used during convalescence from the ague and fever, this is an invaluable article.

The root should be well dried, and then broken up in a mortar, when it will be ready to be prepared, either by infusion, or by putting it into wine. When thus prepared, it is to be drank freely without any particular reference to quantity. The alcoholic extract is an excellent form in which to employ the medicine. The dose of this is five grains.

PRUNUS VIRGINIANA.

Wild Cherry.

This is a forest tree, indigenous to this country, and too common to need description.

Medical properties and uses.—The inner bark of the wild cherry has a very pleasant bitter taste. It is a good tonic, laxative, nervine and anodyne. As a strengthening and healing medicine to the lungs, there is, perhaps, not a better article in the materia medica. The medicine has, in the hands of the author, given general satisfaction in the treatment of pectoral diseases. In pulmonary consumption, where there is much debility of the system, and irritability of the lungs, this article will be of special service. The medicine may be taken in substance, in tea spoonful doses, but the extract is better, and much more convenient; the dose of this is from 5 to 10 grains. When taken by infusion, a table spoonful of the fine bark may be scalded in a pint of water, and taken in wine glassful doses, three times a day.

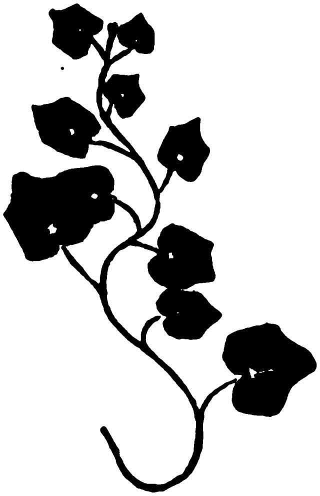
VERBENA.

Vervain.

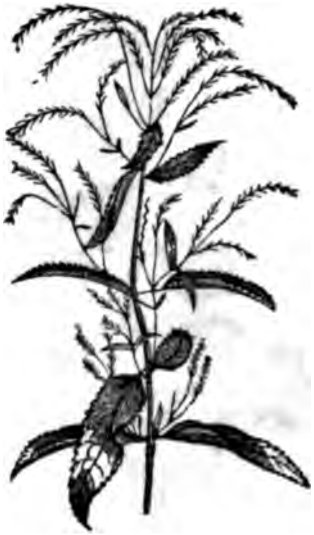
There are several medical species of vervain, the blue or purple, and the white flowered however are the only kinds commonly in use.

Blue Vervain, (*Verbena Hastata.*)—Root perennial, white, fibrous. Stem erect, tall, branched, square. Leaves opposite, petiolate, lanceolate, acuminate, and rough; in some species (*pinnatifida*) they are gash pinnatifid, and coarsely toothed; in the *oblongifolia*, they are lance-oblong, deeply serrate, acute. The flowers are purplish and in spikes.

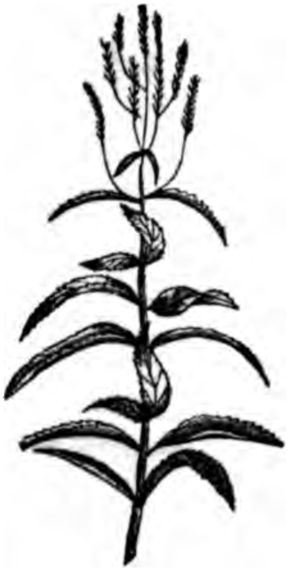
White Vervain, (*Verbena Urticifolia.*)—This is the nettle-leaved vervain. It differs little from the foregoing, only that it is more branched, and has white flowers



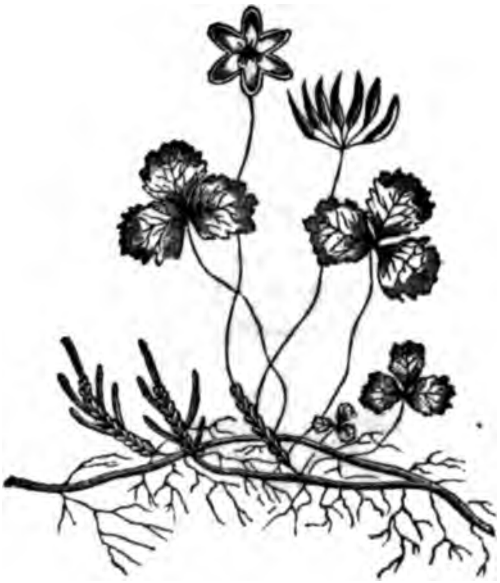
Menispermum Canadensis, (Yellow Parilla).



Verbena Verticifolia, (White Vervain)



Verbena Hastata, (Blue Vervain).



Coptis Trifolia, (Gold-thread).

which are disposed in more slender spikes. The vervain is a very common plant, growing in door-yards, meadows and wet places.

Medical properties and uses. — The roots of the vervain are tonic and in large doses emetic. It has been employed in view of both these effects in fevers, especially in intermittent and remittent. Dr. Thomson valued it highly for these purposes. It is taken in strong infusion, freely.

Bitter Ash, Wa-hoo, (*Euonymus Atropurpureus.*)—The root of this shrub is intensely bitter, and is a very good tonic, and laxative. Its application is in such cases as were pointed out for other articles of this class. By some, it is considered equal to the dogwood as an anti-intermittent, and febrifuge.

Wild Hoarhound, (*Eupatorium Teucrifolium.*) — This is a valuable tonic, and is much used by Southern planters.

Hops, (*Humulis Lupulis.*) — The pollen or yellow dust of the hop, is an invaluable tonic, in intermittent and remittent fevers, as well as in other cases where articles of this kind are required.

Gold Thread, (*Coptis Trifolia.*) — The root of this plant is a pure and very bitter tonic; useful in dyspepsia, and all cases of debility.

Peach Meats. — The meats of the peach-stone, are highly recommended as a medicine in cases of weak digestion. Dr. Thomson regarded them as being peculiarly beneficial to the stomach and bowels.

Chamomile, (*Anthemis Nobilis.*) — Chamomile is a very popular tonic, and is much used in domestic practice. Besides its tonic properties, it is also used by some as an anthelmintic.

Iron. — Iron filings and the sub-carbonate of iron, are both excellent and harmless tonics. Iron may be used in any convenient dose, as from one to two tea spoonfuls, in molasses or other convenient vehicles. It is an excellent tonic in amenorrhœa, and chlorosis.

III. ASTRINGENTS.

Astringents are commonly defined to be substances that contract or condense and support the tissues of the body. When taken into the mouth, they produce a marked sensation of roughness or puckering of the lips, tongue, and palate.

The usefulness of this class of medical agents, has, in general, been too much overlooked by medical authors and practitioners. Astringents have usually only been considered with reference to their immediate and independent effects on the substance of the organs. But it is not unreasonable to suppose that these agents, like some others, may in their effects sustain certain specific, harmonious relations with the vital laws, so as to promote the conservative powers in a manner entirely independent of their superficial and most obvious impressions on the economy. A part may become diseased, — take on inflammation, and soon manifest signs of gangrene; if now an application of some active astringent be made, the morbific cause will be suspended, and the part recover. Now here is an agency evinced entirely different from the power of mere contraction. Astringents render stimulants and tonics very much more permanent and prompt in their effects. Hæmorrhages are sometimes instantly arrested in distant parts, by the simple introduction of some active astringent into the stomach. In this case it cannot reasonably be supposed that the effect was produced by the direct influence of the medicine on the hæmorrhagic parts.

The accoucheur of the Reformed system, well knows the singular power that some of our astringent articles possess over the irritated uterus. A single dose of these, sometimes, stops untimely pains that may have harrassed the patient for several days.

In view of these facts, it must be admitted that astringents possess a peculiar curative power that is manifested, not only in their local effects, but in their influence on the general system.

The *local* and *immediate* effects of astringents, are also somewhat remarkable: in gonorrhœa, and diarrhœa, a strong infusion locally administered, will, if persevered in, seldom fail of giving relief.

The singular promptness of these medicines in arresting hæmorrhages, when locally applied, entitles them to the name of *styptics*.

In cases of unhealthy secretions, and morbific accumulations on mucous surfaces, and especially those of the alimentary canal, astringents are almost indispensable. They cause a contraction of the tissues, and thus disengage the comparatively inelastic, morbific coating, which is thus discharged, sometimes in large pieces, commonly called false membrane or canker.

Prolapsus and excessive relaxations also imperiously demand the use of astringent medicines.

As a general tonic and restorative, astringents are of great value. They seem to render the animal tissues more firm and capable of resisting morbific influences. But their use as tonics is not always indicated when medicines of a restorative or toning character may be serviceable. For this purpose the bitter tonics are more generally applicable.

Astringent vegetables do not all necessarily produce constipation. Many articles of this class may be used internally for a long time without materially affecting the bowels in this way. Moreover, there are astringent articles that are considerably laxative in their effects; and some, such as rhubarb, are, indeed, commonly used as cathartics.

SPECIAL ASTRINGENTS.

GERANIUM MACULATUM.

Cranesbill; Crowfoot; Geranium.

Description.— The cranesbill has an irregular, knotty, contorted, pitted, brownish, perennial root, with few fibres. The stem is erect, round, pubescent, about a foot or more in hight, and with few branches. The leaves are palmate or deeply divided into from five to seven lobes, which are rough, hairy, variously incised at their extremities; the lower ones supported on long radical petioles that are purplish at their base; and the upper ones opposite and smaller. The flowers are purplish, with five petals, and are supported on peduncles arising from the joints of the stem, and bearing each two flowers on short pedicels. The pistil of the flowers is very long and projecting, like a crane's bill,—whence the vulgar name of the plant.

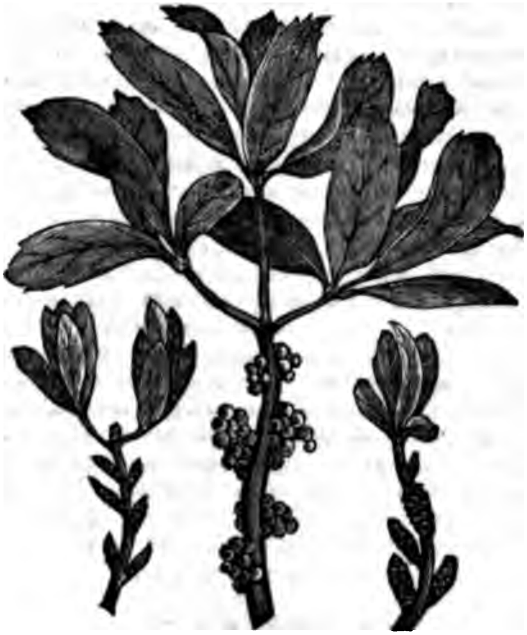
Locality and habits.—This is a very common plant, found throughout this country, especially in the Western States.

Medical properties and uses.—The root of the cranesbill is one of the most pure and powerful astringents, and styptics, that we possess. Being easily procured, and not objectionable on account of any unpleasant taste, or other offensive properties, it is likely still to improve in popularity as an astringent, although it is already in great favor as such. The medicine is particularly useful in hæmorrhages, prolapsus, diabetes, diarrhœa, and, after the bowels are well cleansed, in dysentery. The decoction of this article is also very good as a wash in aphtheous sore mouth, and as such in the treatment of old sores, cancers, &c. The decoction is made by boiling an ounce of the coarsely powdered root in a pint of water,—letting it settle, and pouring off the tea. For internal use this is taken in wine glassful doses once an hour, or as the circumstances may indicate. When the medicine is taken in substance, a tea spoonful is considered a dose. The extract, which is an excellent form in which to employ this medicine, may be made with water or alcohol; when made with the use of the latter it is best. The dose is five to ten grains.

MYRICA CERIFERA.

Bayberry ; Wax Myrtle.

Description.—Bayberry is a shrub growing from two to twelve feet in hight. The stem is much branched, and has a grayish bark. The leaves are narrow and tapering at the base, lanceolate at the other end, and slightly toothed toward the point. They are somewhat disposed to twist; are of a deep shining green on their upper surface, and stand alternately and somewhat crowded on the ends of the small branches. The flowers are of a greenish-purple color. The fruit is a globular naked berry, single, or in clusters around the



Myrica Cerifera, (Bayberry).

branches. When these are boiled, a greenish-white wax is obtained, which is used for various purposes, as for candles, salves, and plasters.

Locality and habits. — The bayberry bush is found all along the Atlantic coast, from New England to Louisiana. It generally grows largest in the South. It flowers in May.

Medical properties and uses. — Bayberry is an invaluable stimulating astringent. When an infusion of the medicine is taken into the mouth, it produces quite a pungent and astringent sensation, with a flow of saliva. When swallowed it occasions a sense of warmth, but by no means unpleasant feeling in the stomach.

Few, and perhaps none of our astringents have a more extensive application than bayberry. In all cases where it is wished to produce an exciting and bracing effect in the system, this will be our best article. In the exhibition of its curative powers, the medicine, instead of producing its effects at the expense of the tonic power of the system, will, indeed, add vigor to the very organs on which it spends its influence.

Bayberry is highly valuable in cases of dysentery, cholera, hæmorrhage, and all other excessive evacuations. An infusion of bayberry forms an excellent drink to be taken before and during the operation of an emetic. It prepares the general system, and especially the stomach for its easy, safe, and effectual operation. When compounded with some appropriate laxative, it forms an excellent preparation to be used in the treatment of strumous habits. The decoction makes a very good wash in the treatment of cancers and ulcers; in the fistulous ulcer, it should be injected by means of a proper syringe.

Cranesbill has not been placed before this article in the present class of agents, because it is a more valuable medicine, but simply because it is a purer astringent, — bayberry being also stimulant. It is in view of its conjoined stimulating and tonic properties, that the bayberry is, by many physicians, combined with diaphoretic compounds.

The dose of the pulverized bark of the root is a tea spoonful, repeated as circumstances may require. The strong infusion is taken in half tea cupful doses. The alcoholic extract is, however, by far the most convenient form of its use: the dose of this is five to ten grains.

NYMPHÆ ODORATA.

White Pond-Lily.

Description. — The root of this plant is perennial, two or three inches in diameter, several feet in length, beset with fibres; fleshy, round, light colored within, darker without, and somewhat tubercular. The leaves are large, round, peltate, cleft to the stem, entire, smooth, glossy, green above, reddish white below, and stand on long radical petioles. The flowers are large and white; they open to the sun in the morning and close in the evening. They are supported on long stems rising from the root.

Locality and habits. — This beautiful plant is found in many parts of the United States, growing in ponds and marshes. In some of these places it grows very plentifully. Occasionally large mats or patches of it are found floating in the water, — the roots being loosely surrounded by a collection of decayed vegetation, or light mud.

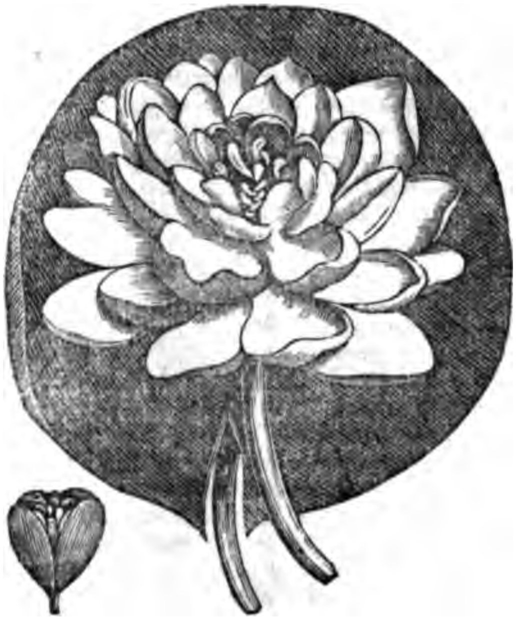
Medical properties and uses. — The root of the white pond-lily is a very pure and inoffensive astringent. It is not apt to disagree with the stomach or taste, and hence is very convenient for use among children.

This article, though equally serviceable in all cases in which medicines of this kind are indicated, has its special use in the form of a poultice or infusion for delicate parts that may require astringent applications, as for a wash in aphthæ, a drink for bowel complaints in children, — enemas in dysentery, and injections in prolapsus and gonorrhœa. The usual form of its internal use is by infusion, taken freely, but the extract is more convenient.

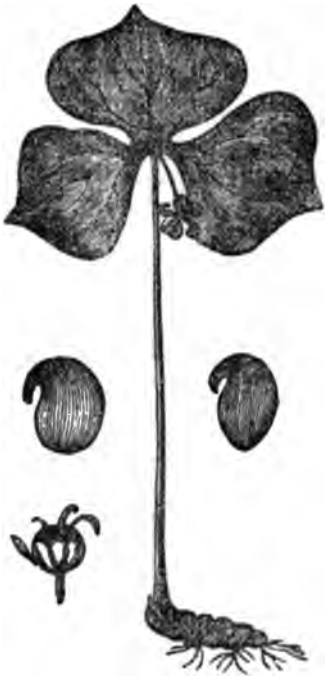
TRILLIUM.

Beth-root; Wild Lily.

Description. — There are many species of the trillium most of which are medicinal. The white, red, and purple flowered varieties, are, however, mostly used.



NYMPHÆA ODORATA, (White Pond-lily).



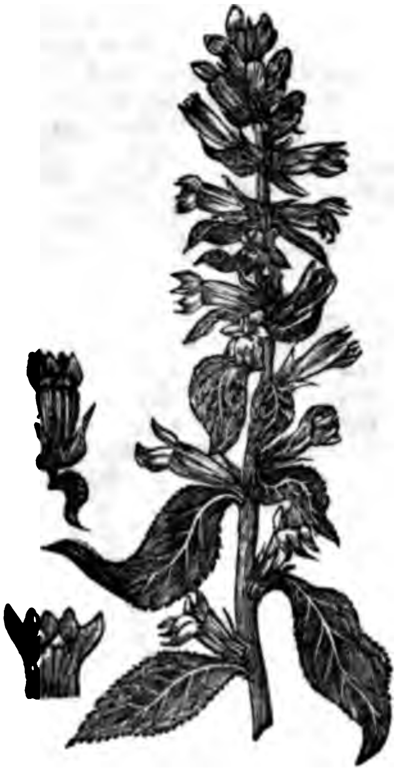
Trillium Laterifolium, (Birth-root)

The root of these plants is perennial, bulbous, oblong, wrinkled, beset with fibres; about an inch in diameter, and about two inches in length. The stem is simple, upright, round, smooth, green, from eight to twelve inches or more in hight, and surmounted with three broad, obtuse-acuminate leaves, from two to three inches in diameter. The flowers of the different species differ somewhat in their color, size, and position; some are white, some red, some purple, and others mixed. In all the species the flowers arise from the junction of the leaves; in some they are erect, in others pendulous or nodding.

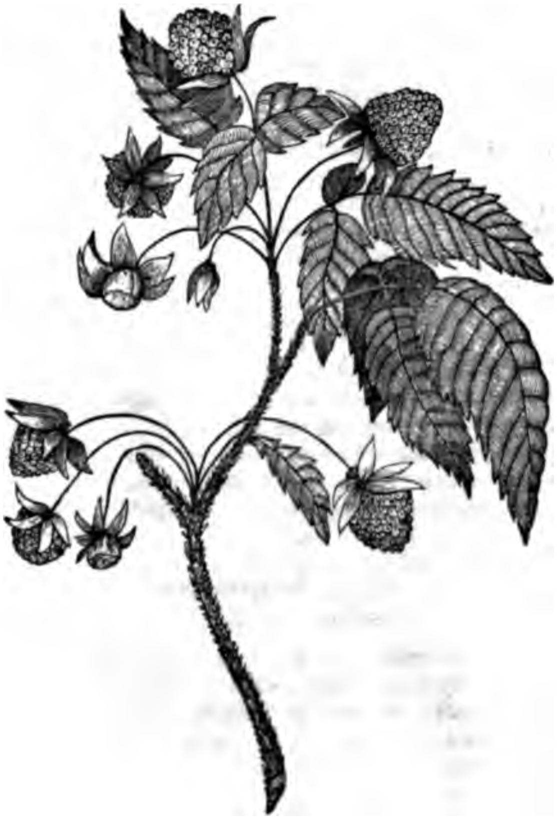
Locality and habits.—The trillium genus of plants is peculiar to North America. Some of the species are most common in mountainous countries, and others in rich bottoms. Some of the varieties of most species are found in the majority of the States.

Medical properties and uses.—The beth-root is astringent, styptic, tonic, antiseptic, detergent, and somewhat expectorant. As an astringent, it is excellent in hæmorrhagic affections, and fluxes. The Indians considered that the purple flowered varieties, were best in all sanguineous effusions, especially bleeding from the lungs, —that the red flowered varieties were best in menorrhagia, and the white flowered in leuchorrhœa.

Although the trillium has but recently been introduced into notice as medicine, yet the experience of very many of our practitioners fully testifies to its superior merits. Aside from its utility in hæmorrhages, it is of considerable value in pectoral diseases. As an external application, in the form of a poultice, the fine root is superior to almost anything else in foul ulcers, gangrene, carbuncles, &c. Professor Rafinesque considered a poultice of the beth-root, combined with blood-root, a certain remedy, if preceded with a cathartic, in cases of carbuncles and ulcers. The dose of the pulverized root is a tea spoonful. When taken in infusion, a table spoonful of the fine root is scalded in a pint of water, and drank freely.



Lobelia Syphilitica, (Blue Lobelia).



Rubus Strigosus, (Red Raspberry).

season they become of a fiery red color. The flowers are greenish-red, and are arranged in erect, terminal thyrses, forming a conical bunch, as large as a man's fist. These are followed by clusters of small red berries, covered with a delicate down, of an agreeable acid taste.

Locality and habits.—This shrub is found in all the Northern, Middle, and in some of the Western States, growing in hilly places, in waste fields, along fences, &c.

Medical properties and uses.—The bark, leaves, and powder which covers the berries, possess valuable astringent, tonic, detergent, and diuretic properties. The decoction forms an excellent wash for ulcers and old sores; it also forms a valuable gargle in mercurial sore mouth, sore throat, &c.; and may be used with great advantage as an application in tetter and many cutaneous diseases. Taken internally it produces a tonic effect upon the skin, and may be employed with advantage when that organ is in a relaxed and debilitated condition. It may also be used with advantage in strangury, and in bowel complaints. The bark of the root is esteemed of value as an antiseptic; and, made into a poultice, is almost unequaled as a remedy for old ulcers.

RUBUS STRIGOSUS.

Red Raspberry.

Description.—This is a bushy, perennial shrub, with slender, upright stems, which have a reddish bark, beset with numerous stiff bristles or spines. The leaves are rough, lanceolate, acuminate, serrate, with deep latteral notches, green above, and white beneath. The flowers are white, and disposed in clusters. The fruit is red when ripe, of a conical shape, granular, and edible.

Locality and habits.—This plant is found in most of the States, growing in waste lands, and in stony places; frequently among rocks on the sides and summits of mountains.

Medical properties and uses.—The leaves of the red raspberry form a mild and agreeable astringent, possessing slightly tonic properties, and a pleasant aromatic taste. It forms an excellent medicine in the treatment of bowel complaints of children. In such cases it may be given in decoction, per stomach, or by injection. It is also valuable as a medicine to be used in connection with capsicum and skullcap, or lady's slipper, for the purpose of regulating labor pains. Dr. Thomson recommends a tea of this to be given occasionally to very young children. He says it will prevent the sore mouth to which they are liable. It also constitutes a soothing and cleansing wash for burns, sores, and irritated surfaces.

Among the particular indications for its use, are the occasions for astringent applications in parts where mild, unirritating, and pure medicines alone are admissible, as in the eye, inflamed sores, &c.

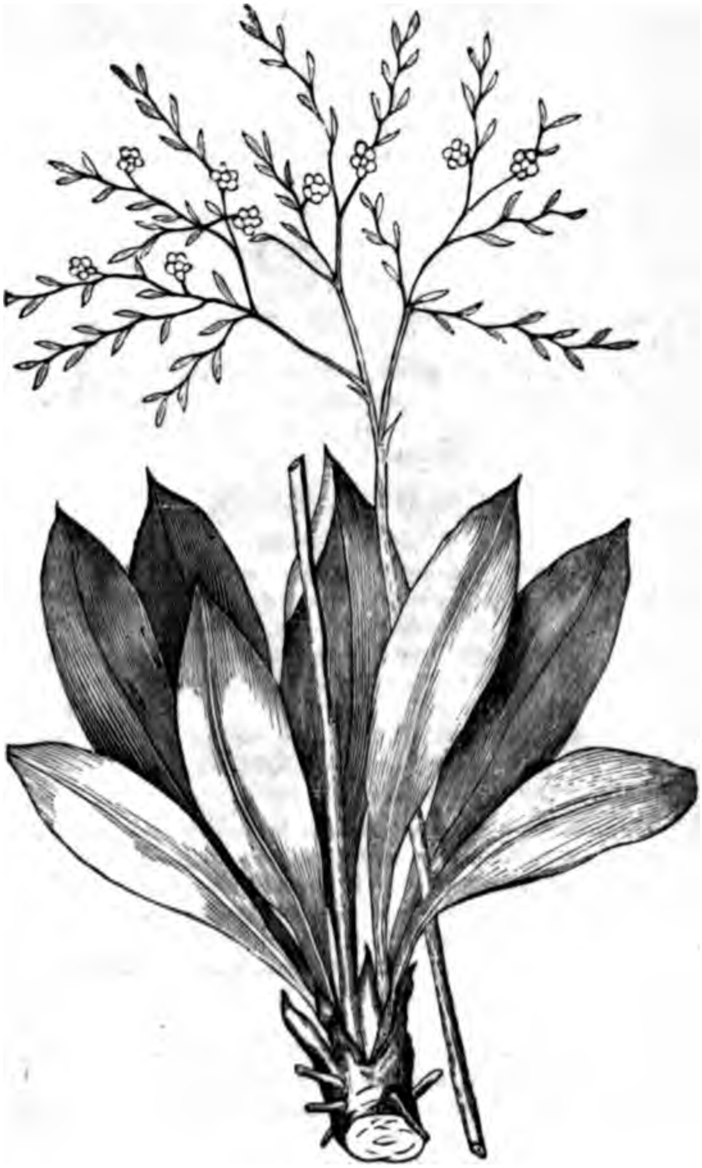
STATICE LIMONIUM.

Marsh Rosemary.

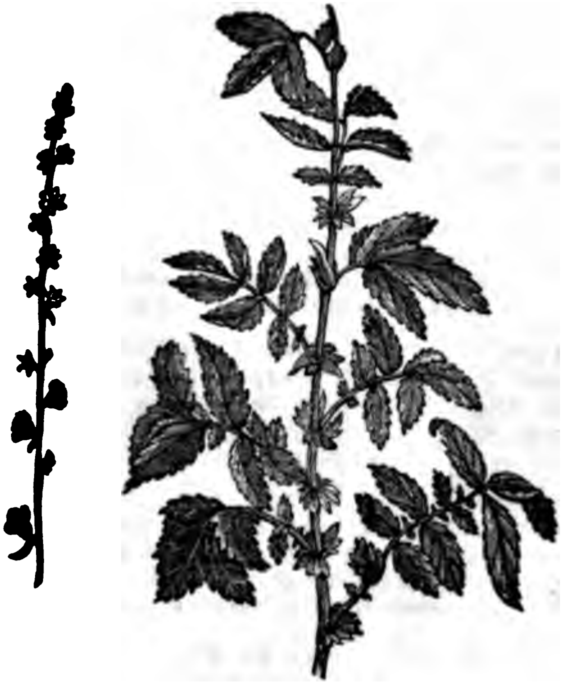
Description.—Root perennial, fleshy, and branched. The flower stem is round, smooth, upright, about a foot in hight, and considerably branched at the top. The leaves are radical or standing on long radical petioles; they are obovate, cuneform, obtuse at the outer ends, acuminate, entire, flat and shining on their margins, somewhat thick and firm. The flowers are numerous, small, bluish-purple, and arranged on the upper sides of the terminal branches.

Locality and habits.—Marsh rosemary is principally found along the sea-coast from New England to Florida. It flowers in August and September.

Medical properties and uses.—The root of this plant is very powerfully astringent, antiseptic and styptic. The medicine, however, is not much used as an internal remedy, as it is considered to have a tendency to produce constipation of the bowels. As an external application, in the form of a poultice, to inveterate ulcers, cancers, &c., it is very highly esteemed. The decoction is also much valued as a gargle and wash in sore mouth or aphthea, and sore throat. Dr. Mattson also recommends an ointment made of the root for the cure of piles.



Statice Limonium, (Marsh Rosemary).



Agrimonia Eupatoria, (Agrimony).

AGRIMONIA EUPATORIA

Agrimony; Stickwort; Cocklebur.

Description. — Root perennial. Stem round, hairy, from one to two feet high. Leaves alternate, rough, ragged, hairy and unequal — the lower ones the largest. Flowers yellow, and disposed in a terminal peduncle. Fruit a green colored bristly bur, containing seed. Grows in neglected fields, road-sides, and along fences, in most parts of the United States.

Medical properties and uses. — The root of the agrimony is a mild astringent and tonic, useful, in the form of hot infusion, in diarrhœa among children, and the looseness attending some of the varieties of low fevers, as typhoid. It is also recommended in jaundice, scurvy, and, by Dr. Elisha Smith, as an invaluable remedy for scrofula, if perseveringly used. It has also been favorably spoken of as a remedy for skin diseases.

Evan-root, (*Geum Rivale.*) — The root of this article, which is sometimes called chocolate-root, and water evans, is a gentle astringent, and is much used in domestic practice, in the form of a strong decoction, for bowel complaints among children.

Dewberry, (*Rubus Trivialis.*) — Blackberry, (*Rubus Villosus.*) — The bark of the root of both these species of the rubus is powerfully astringent, and as such, is much used in dysentery and diarrhœa, after the bowels are well cleansed by the proper means.

Matico, (*Piper Angustifolium.*) — This plant is a native of Peru; the flowering tops and leaves are brought to us, and are to be obtained in the shops.

The matico is astringent, and powerfully styptic. The pulverized leaves and flowers should be applied to the bleeding parts; or a strong decoction may be made of them, and the parts washed with it. The decoction is also good in uterine and all other hæmorrhages, as well as bloody flux. It will also be found useful in gonorrhœa and leucorrhœa.

Hemlock Spruce, (*Pinus Canadensis.*) — The inner bark of this tree is an active astringent, and is much no mean character. The most of the sarsaparilla of commerce is produced by the smilax genus of plants. But it is not yet certainly known what species of smilax it is that produces the genuine or best article. It has been supposed that the smilax sarsaparilla of the United States is identical with the smilax brought from Honduras, which produces the best sarsaparilla that is brought to us.

The smilax sarsaparilla has a long slender stem or vine, which is somewhat angular and beset with prickles. The leaves are alternate, unarmed, ovate, lanceolate, nerved, glaucous beneath, and supported on footstalks accompanied with long tendrils. The flowers are disposed in bunches of three or four on a common peduncle, which is longer than the petioles of the leaves. This plant is usually found growing in swamps and hedges, through the Middle and Southern States.

The Honduras sarsaparilla is brought to us directly from the Bay of Honduras, and comes in bundles two or three feet in length, which are composed of a number of roots folded lengthwise and wound or tied around in the middle, to secure it, with a long piece of the root. The bunches are packed in large bales, covered with skins. The thickness of these roots is about that of a pipe stem, and the color of the bark is of a reddish-gray.

Much of this sarsaparilla is brought to us from Jamaica, whither it is brought from Honduras. This that comes by this route is generally called Jamaica sarsaparilla.

There are still other varieties of sarsaparilla that are brought to us from different countries, which generally bear the names of the ports or countries from whence they are brought: thus we have the Brazilian, Lima, Caraccas, Peruvian, Vera Cruz, and Mexican sarsaparilla.

Medical properties and uses. — The sarsaparilla root has for many years been considered among the best alteratives that we possess. It is particularly useful in syphilis, strumous habits, tubercular consumption, &c. When the medicine is prepared for use, it should not be much boiled, but may be broken up fine, and then be simmered for a few hours in water at a moderate heat; or it may be reduced to a fine powder, and then digested for three or four days in warm water. This is then to be taken freely. The extract of sarsaparilla that is found in the shops is not, generally, worth much.

When sarsaparilla is selected for use, that should be taken which has the strongest odor, and that which on chewing it leaves an acrid impression on the tongue. The alcoholic extract made with as little heat as possible is best. The dose of this is ten to twenty grains.

STILLINGIA.

Queen's-root; Cock-up-hat; Queen's Delight.

Description. — An indigenous, perennial, herbaceous plant. Root large, woody, Stem herbaceous, two or three feet high. Leaves sessile, alternate, oblong or lanceo-oblong, obtuse, serulate, tapering at the base, and accompanied with stipules. Flowers yellow, monœcious, and arranged in a spike, the upper flowers of which are the staminate, and the lower the pistillate. When wounded, the plant yields a milky juice. Grows in pine barrens from Virginia to Florida and Louisiana.

Medical properties and uses. — The stillingia is one of the best alteratives that we possess. It is also somewhat purgative, but its alterative properties are the most valuable. The medicine is now employed with great success in the treatment of syphilis, and is also considered of much service, even in leprosy, elephantiasis, and frambœsia, as well as in other affections of a chronic character, dependent upon a depraved or cachectic habit of the system. It was an ingredient in Swaim's Panacea. It is taken in the form of infusion, decoction, tincture, syrup, or extract, in doses large enough to keep up a cathartic effect.

GUAIACUM.

The gum-resin and chips of guaiacum are employed, and especially of late, with great success as an alterative. It is especially useful in rheumatism, gout, sciatica and glandular diseases. The dose of the resin in powder is from ten to fifteen grains. The chips are employed in alterative syrups.

RUMEX CRISPUS.

Narrow-leafed Dock.

Description. — Root perennial, large, fleshy, branched, spindle-shaped, and of a yellow color. Leaves many, radical, large, lanceolate, entire, crisped, and are supported on long grooved petioles. The stem is upright, smooth, furrowed, with a few bracts as it ascends, and branched at the top. The terminal branches are beset with many small flowers, which are followed by numerous small three-sided seeds.

Locality and habits. —This is an extremely common indigenous plant, growing about door-yards, in meadows, along fences, and in lanes. It flowers in July.

Medical properties and uses. — This and nearly all the other docks, especially the broad-leaved and bur-dock are good alteratives, tonics, and detergents.

These plants are excellent eutrophics, and as such, may be used with advantage in all scrofulous, strumous, scorbutic, and scirrhous affections. They are particularly useful in cases of chronic diseases of the skin that are dependent on a vitiated state of the humors.

ACETATE OF AMMONIA.

The acetate of ammonia is prepared by dissolving carbonate of ammonia in acetic acid until the product is perfectly neutral. It is an excellent alterative, and a very effectual counter-poison. It will cure the hives and various other inflammatory skin diseases, such as erysipelas, erythema, tetter, &c.

ARALIA NUDICAULIS.

False Sarsaparilla.

Description. — This is a common plant in the Western Country, and is much used under the name of sarsaparilla. It has a long, horizontal, perennial root, of about the thickness of a pipe stem, with a grayish bark. The stem is upright, round, smooth, about a foot or more in hight, and divided on the top into three petioles, bearing as many quinate, or thrice ternate leaves. The leaflets of these are oblong-oval, acuminate, rounded at the base, smooth on both sides, and serrate. The scape or flower stem is naked, shorter than the leaf, and terminated by three umbils with numerous yellowish-green flowers, followed by small round berries.

Locality and habits. — This plant is found on uplands or hilly places, growing in woods, new grounds, &c. It is found in most of the Western States.

Medical properties and uses. — The false sarsaparilla is used for the same purposes as the genuine sarsaparilla, only it is not so good, and must be taken in larger quantities. It is generally taken in decoction, or infusion, and drank in portions as large as the stomach will bear.

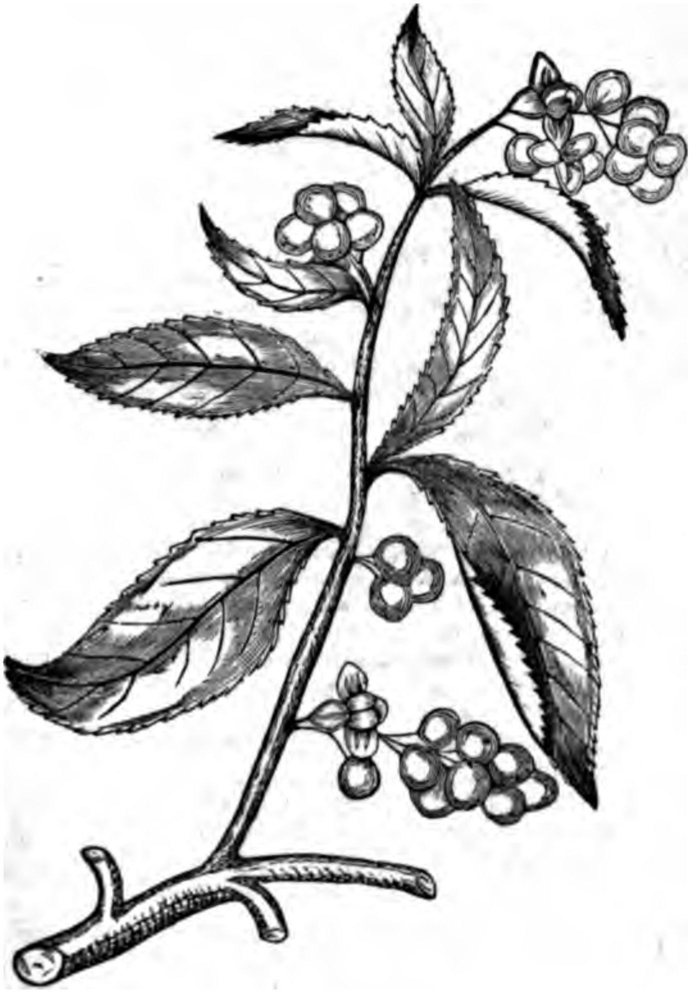
ARALIA RACEMOSA.

Spikenard.

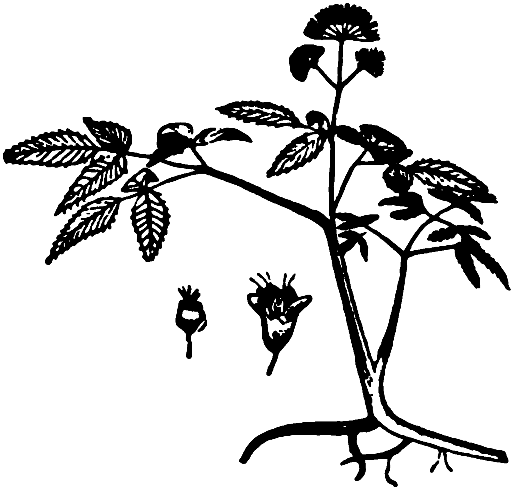
Description. — The spikenard is a beautiful luxuriant plant, with an aromatic, long, perennial, horizontal, spindle-shaped, and branched root, which has a grayish bark. The stem is round, smooth, branched, and of a purplish-green color. The leaves are large, compound or thrice ternate, with oblong-oval, lanceolate, acuminate, smooth, entire, serrated leaflets. The flowers are arranged in umbils; they are followed with round, purple or dark berries.

Locality and habits. — Spikenard delights in a rich soil, and is found in ravines, along fences, in the woods, and often selects piles of vegetable mold, as the remains of logs or timbers. It grows in most of the States.

Medical properties and uses. — Besides its general application where alteratives are indicated, it seems, according to the opinion of some, to be particularly serviceable in pectoral or lung affections, and female weakness. The green root forms an excellent poultice.



Celastrus Scandens, (Bitter-sweet).



Aralia Racemosa, (Spikenard).

CELASTRUS SCANDENS.*

Staff Vine; False Bitter-Sweet.

Description. — Root woody, long, with a thick fleshy bark, and beautiful yellow cuticle. The stem is a long vine, with a rough bark, which has a grayish cuticle, but yellow derm. The vine is generally supported by bushes, and trees, around which it binds, sometimes so tightly as to bury itself in the solid wood. It is much branched at the top, and bears, in the fall, numerous clusters of beautiful orange-colored, oblong berries.

Locality and habits. — This singular plant is found most plentifully in the rich western bottoms.

Medical properties and uses. — The bark of the root of this plant, is considerably alterative in its effects. It is chiefly used in decoction or infusion, for chronic cutaneous affections. In order to insure its good effects, its use must be persevered in. In some medical books this article is recommended in the form of an ointment, for scrofulous tumors, and other obstinate swellings. But this credit was gained for it, from the popularity of the real bitter-sweet, for which it has been mistaken, as already remarked.

SILPHIUM PERFOLIATUM.

Cup-plant; Ragged-cup.

Description. — Root perennial, long, crooked, pitted, jointed, with fibres issuing from the joints. Stem upright, square, about an inch in diameter, branched at the top, and from two to six feet in hight. The leaves are large, ragged, clasping or cupped, opposite, and diminishing in size toward the top. The flowers are terminal, with a broad disk, and beautiful, yellow, spreading petals.

Locality and habits. — The cup-plant is found in the rich bottoms of our western rivers. In some places it grows very plentifully.

Medical properties and uses. — The root of this beautiful plant, when taken into the mouth, has a strong scratching or acrid taste, which is very durable in its effects. It excites the secretions, and operates as a general deobstruent. Its effects are also prominently eutrophic. In all chronic visceral affections, this article will prove itself a valuable remedy. As a diaphoretic it is not inferior, and hence the medicine is particularly serviceable in visceral inflammation, such as chronic hepatitis and chronic inflammation of the spleen. It is prepared in strong decoction, and taken in half tea cupful doses according to the symptoms.

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* This plant, though entirely dissimilar, is often confounded with the *solanum dulcamara*, or woody nightshade.

PHYTOLACCA DECANDRIA.

Poke-root; Scoke.

This is a very common plant, growing in most cultivated places in our country, and needs no description. As a medicine it is generally regarded too harsh for common use. The dried root forms an excellent topical application, however, in the treatment of cancers and other obstinate tumors, and forms one of the chief ingredients in the popular irritating plaster now in use by our profession. It is also of considerable service in some cutaneous affections, as in obstinate cases of tetter and porrigo. But its chief use is in the treatment of syphilis.

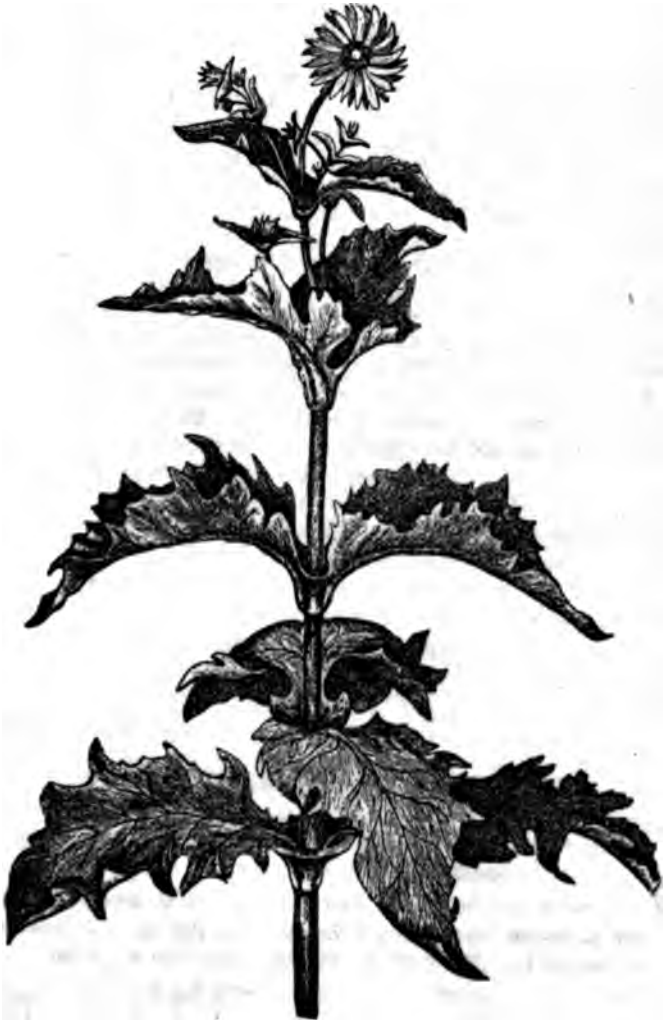
ALNUS SERRULATA.

Black Alder, Tag Alder.

Description.—This is a shrubby tree or bush, rising from five to fifteen feet in hight. It is much branched at the top, and has a grayish bark. The leaves are large, roundish, or oblong, acuminate, and serrate. The flowers are in aments or tags, like those of the hazel, and appear in autumn.

Locality and habits.—The black alder is found in wet lands, along brooks, and in swampy places. It grows in bunches of from six to several dozen in a place.

Medical properties and uses.—The bark of the root, the tags, and boughs, are alterative, and detergent. The medicine is generally used in diseases of the skin. It is prepared in strong decoction, and taken freely. The decoction makes a good wash for old foul ulcers.



Silphium Perfoliatum; (Cup-plant).

CROCUS SATIVUS.

Saffron.

The saffron plant is a native of Greece and Asia Minor, but is considerably cultivated in Europe and America, in gardens. It has a depressed bulb or cormus from which issue its long linear leaves. Its flower is large and of a beautiful lilac color. Its style hangs out through a segment of the corolla, bearing three long, convoluted, and highly odorous stigmas, which are the medical portion of the plant.

Medical properties and uses.—Saffron has been much in use as an alterative, stimulant, and antispasmodic, and was considered particularly serviceable in bringing out eruptions upon the skin. It is now chiefly employed by nurses and old women, among children. The dose is ten grains. It is very useful as a coloring material for tinctures and essences.

V. ANTISEPTICS AND DISINFECTANTS.

Antiseptics are remedies which have a tendency or power to prevent putrefaction or mortification, or of obviating it when it has already taken place. Disinfectants are agents that are capable of neutralizing morbific and offensive effluvia: they are also antiseptic in their effects.

SPECIAL ANTISEPTICS AND DISINFECTANTS.

ACIDUM PYROLIGNEUM.

Pyroligneous Acid; Vinegar of Wood.

This acid is obtained by the destructive distillation of wood. To prepare it, a furnace should be built, and a strong sheet iron cylinder of any size, with a tight lid, placed in it. To the top of this, an iron tube, about a foot in length, should be fixed: to this there should be fixed a worm of a common still, or any other suitable tube, long enough to condense the vapor. This worm or tube must pass through a tub or trough of water, to favor the condensation. The apparatus being complete, the cylinder may be filled with some solid dry oak, or any other good dry wood, and the lid carefully luted with clay, so as to make the whole air-tight. A good fire may now be raised and continued until the products cease to come over. The products in the vessel, previously prepared to receive it, are an impure pyroligneous acid, which will answer for ordinary external use, but for internal use, and for the preservation of meat, &c., it should be purified by redistillation.

Medical properties and uses.—This is perhaps the most powerful antiseptic that we possess. The article, of moderate strength, (about one part to two of water,) needs only be applied two or three times to gangrenous parts to restore them. As a cleansing and healing application in the treatment of ill-conditioned ulcers, cancers, and scrofulous sores, it, perhaps, has no rival. The medicine is applicable in all cases in which a powerful antiseptic, and healing medicine is required.

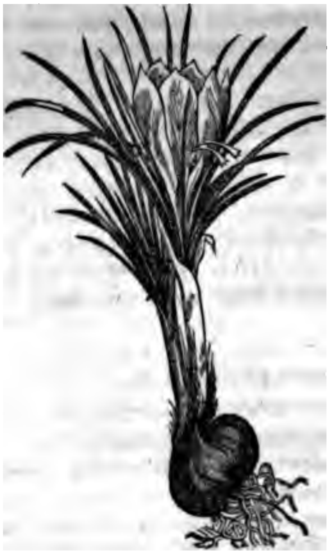
Any kind of meat may be preserved by dipping it into this acid a few times, and it will neither injure the meat, nor spoil its flavor, but rather improve the latter, at least for some palates.

BAPTISIA TINCTORIA.

Indigofera; Wild Indigo.

Description.—Root perennial, irregular, large, woody, blackish outside, yellowish within, and sending off many slender branches or fibres. Stem two or three feet high, round and smooth, of a yellowish-green color, interspersed with black spots. Leaves alternate, obovate, small. Flowers of a beautiful yellow color, and are succeeded by a swelled oblong pod of a dark color.

Medical properties and uses.—The root of this plant is a powerful antiseptic when topically applied. Bruised and simmered in water, it makes an excellent solution for washing foul and putrid ulcers; fried in lard it also makes a good ointment for healing up old, obstinate, and putrid ulcers and sores. A poultice of the root or top is excellent as an application to gangrenous parts. It may be employed internally in the form of decoction or infusion, as an antiseptic in cases of threatened gangrene of the stomach, bowels, perito-



Crocus Satavis, (Saffron).

neum, &c. Half an ounce of the dried root steeped in a pint of hot water, and taken in one or two table spoonfuls once in five or six hours, is the common way in which it is employed.

CARBO LIGNI.

Charcoal.

Charcoal is prepared by burning wood in a smothered state, so that the combustion is carried on by a limited supply of oxygen, and hence nothing farther than the more volatile parts, as the oxygen and hydrogen, are dissipated, while the carbon, in the form of *charcoal*, is left behind.

Medical properties and uses.—Charcoal is actively antiseptic and absorbent. In the form of a poultice with yeast, it is very good to arrest mortification. With the same view it may be taken in large doses, internally, when gangrene of the stomach or bowels is threatened. It is an excellent article, to be used in typhoid fever and dysentery. Meat embedded in fine charcoal is preserved for many months.

CALX CHLORINATA.

Chlorinated Lime, Chloride of Lime.

This is prepared by the manufacturing chemist, by the action of chlorine on hydrate of lime. It may be purchased at the shops much cheaper than it can be made by the practitioner.

Good chlorinated lime is a dry or slightly moist, grayish-white, pulverulent substance, possessing an acrid, bitter, pungent, astringent taste, and a feeble odor, resembling that of chlorine.

Medical properties and uses.—Chlorinated lime is perhaps the most powerful disinfectant that we possess. It is of eminent service to purify the chambers of the sick. For this purpose it is simply to be put in a dish or saucer, which is then to be placed in some convenient situation in the room.

A solution of chlorinated lime makes an excellent wash for foul ulcers, burns, chilblains, and cutaneous eruptions. It makes, when of suitable strength, a very good gargle in cases of putrid sore throat, and sore mouth and gums. The chlorinated lime constitutes the popular *bleaching* powder that is so extensively used.

CHLORINUM.

Chlorine.

As a disinfectant for clothing and infected apartments, chlorine has long been a popular agent. A mixture that will yield chlorine for three or four days, in a quantity sufficient for all ordinary purposes, may be made by mixing intimately one part of *common salt* with one part of *black oxide of manganese*, and then placing this in a shallow earthen dish, pouring on two parts of *sulphuric acid*, previously diluted with two parts by measure of *water*, the mixture being stirred with a stick while it is being made. If the vessel, containing this mixture, is placed in a room that is infected with a poisonous contagion or effluvia, it will perfectly purify it: or if clothes are held over the fumes rising from the mixture, or even hung in the room containing it, they will be rendered pure.

Persons using the chlorine, should be careful not to inhale much of it, as it is injurious to the lungs.

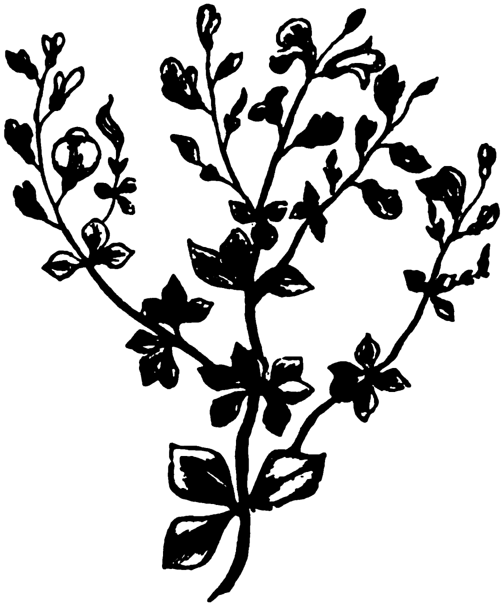
It is unnecessary here to notice severally, all the antiseptics that are found among the *tonics*, *astringents*, and *stimulants*. It must suffice to say that the most active articles in all these classes, as, for instance, cinchona, columba, hydrastis can., geranium, bayberry, white pond lily, capsicum, ginger, black pepper, tinc. of myrrh, and even sassafras bark, are all excellent antiseptics. When used, they should be made up with yeast, charcoal, or slippery elm mucilage, and applied to the parts: or, if needed internally, they may be taken down in decoction, infusion, or tincture, in large doses.

CHAPTER VII.

MEDICINES WHOSE EFFECTS ARE PROMINENTLY CHEMICAL.

I. ALKALIES OR ANTACIDS.

These are remedies which are calculated to obviate acidity in the stomach and elsewhere. This they effect by combining with the acid, and thus neutralizing it.



PAPTISIA TINCTORIA, (Indigofera).

These agents are not of very extensive application, but in some cases are nevertheless considerably important.

Alkalies are chiefly indicated in the burning in the stomach attending dyspepsia; to promote the operation of emetics; in the treatment of poisoning by the ingestion of the concentrated acids, and in urinary calculi, caused by an excess of uric or some other acid.

SPECIAL ANTACIDS.

SODÆ CARBONAS.

Carbonate of Soda.

Carbonate of soda is obtained by the manufacturing chemist, from the ashes of the Chenopodiaceæ and Algaceæ families of plants. It is also found in certain parts in Egypt, Hungary, and South America, occurring in a native state.

The carbonate of soda, as it occurs in the shops, is in opaque, porous masses, of a white color, and made up of numerous, aggregate, chrystalline grains.

The bicarbonate of soda is now rather more in use than the carbonate. It is preferred because it is more pure, and is more pleasant to the taste, as well as to the stomach.

Medical properties and uses.—Either of these preparations of soda may be taken in from a half to a whole tea spoonful doses, dissolved in water. A dose of it may occasionally be taken in cases of heartburn, acid eructations, and all other cases in which alkalies are indicated.

POTASSA BICARBONAS.

Supercarbonate of Potash, Saleratus.

The bicarbonate of potash is obtained by lixiviation of wood ashes, evaporating the liquid or lye, and purifying the salt. As found in the shops, it consists of a coarse granular white powder, and has a nauseous, alkaline taste. It is very soluble in water, but is insoluble in alcohol.

Medical properties and uses.—Saleratus is a very good alkali, but little inferior to carbonate of soda. It may be employed in all cases in which the latter is found useful.

CARBONATE OF AMMONIA.

This is an excellent antacid, and is at the same time considerably stimulant and diaphoretic. It is therefore rather better than either soda or saleratus, in dyspeptic sour stomachs. In typhus fever it is of eminent service. The dose is five to ten grains.

CHAPTER VIII.

MEDICINES WHOSE ACTION IS PROMINENTLY MECHANICAL.

I. DEMULCENTS AND EMOLLIENTS.

The class of demulcents, by many writers on therapeutics, is now considered separate from that of emollients;—the former is now made to comprise such agents as are capable of shielding exposed surfaces from the action of acrid matter, by covering or coating them with their viscid and soft substance; while the latter embraces articles that not only do this, but at the same time, so insinuate themselves into the textures, as to render the parts more lax and flexible by their relaxing power. These agents will, however, here be considered together.

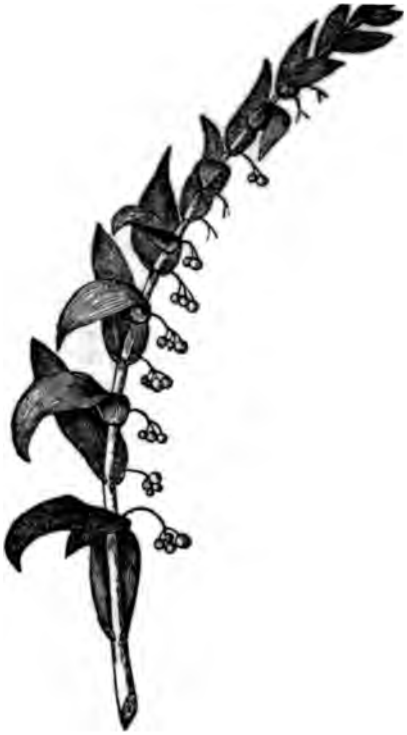
They are particularly serviceable in irritation and inflammation of the mucous membrane of the stomach, bowels and urinary passages; as well as externally in chafes, burns, bruises, and irritable wounds. They should be used in large and frequent doses; for as they chiefly depend on mechanical principles for their action, this end is sometimes prevented by the digestive process—changing the character of the agent—when it is taken in small portions.

SPECIAL DEMULCENTS AND EMOLLIENTS.

ULMUS FULVA.

Slippery Elm.

This is a very common forest tree, and needs no description



Convalaria Multiflora, (Solomon's Seal).

Medical properties and uses. — The mucilage of the slippery elm bark is one of the best demulcents that we possess; and as it is easily procured and pleasant to take, it is very extensively used in medical practice. It may be employed with the certain prospect of benefit in all cases in which demulcents are indicated. It is particularly serviceable in inflammation of the mucous surface of the alimentary canal, and in the form of a poultice or cataplasm, in cases of burns, chafes, irritable ulcers, wounds, bruises, and bealings.

ACACIA.

Gum Arabic.

The gum arabic brought to us, is the product of a number of different trees of the leguminose order, growing in Arabia, Upper and Lower Egypt, Hindostan, and other places. As found in the shops, it consists of roundish or amorphous pieces, or irregular masses of various sizes, more or less transparent, hard, brittle and pulverizable. Its color is usually of a yellowish-white, but frequently presents various shades.

Medical properties and uses. — Gum arabic is an excellent demulcent, and will be found useful in catarrhal affections, and irritation of the mouth and fauces, as well as in inflammation of the stomach, bowels, kidneys, bladder, &c. It also serves as a very good vehicle for taking less pleasant articles.

CONVALLARIA MULTIFLORA.

Solomon's Seal.

Description. — Root perennial, horizontal, jointed, white, round, with some fibres. Stem terete, and inclining, or arched. Leaves alternate, clasping, oblong-ovate, lanceolate, and nerved. Flowers white, numerous, and pendulous.

There is another variety of Solomon's seal that grows more plentifully than this, which, although smaller, is equally valuable.

Locality and habits. — These plants are found in most parts of the United States, growing in rich soil, in rocky and mountainous countries

Medical properties and uses. — Solomon's seal is demulcent and tonic, — boiled in milk it forms an excellent medicine in the treatment of irritable piles, and inflammatory diseases of the bowels generally. It is also quite serviceable in leucorrhœa, and gonorrhœa. The medicine is beneficially used in the form of a poultice, in the treatment of inflamed and raw surfaces. The root is the part used. Dose, as much as the stomach will bear.

Flax-seed, (*Linum Semina.*) — Flax-seed tea is an excellent demulcent, and is particularly serviceable in scalding of the urine. It is to be taken freely without any particular reference to quantity.

Marsh Mallows, (*Althœa Officinalis.*) — The root of this plant may be used with advantage in all cases in which demulcents are required.

Olive Oil, (*Oleum Olivœa.*) — Sweet oil is an excellent emollient, and is exceedingly serviceable as a liniment in burns, chafes, and inflamed surfaces generally. It forms an ingredient in many valuable cerates and liniments.

Oil of Almonds, (*Oleum Amygdalœ.*) — This is a good emollient, and may be used as such in all cases in which the sweet oil is found serviceable.

Lard, (*Adeps.*) — Hogs' lard is a good emollient, and is much used by many physicians instead of sweet oil.

In addition to those already noticed, there are a number of articles that are valuable demulcents, and which are at the same time quite nutritious, but cannot here be treated of separately. Among the most important of these are, arrow root, tapioca, sago, barley, oatmeal, Ireland moss, &c. These are all good in cases of inflammation of the mucous membrane of the stomach and bowels, and in all cases of irritability of these organs.

CHAPTER IX.

BATHING.

Whether we consider bathing as a hygienic means, or curative agent, it is of paramount importance; for such is the human organization — such the relation of the external surface to the entire system, that the slightest derangements in its functions produce effects on the constitution of no small magnitude.

The perpetual supply and metamorphosis or change of the organic elements of the body, are indispensable to its physiological or healthy condition. Now, all these exhausted elements are found immediately in the capillary vessels, and have no convenient chance of exit from the body, excepting that through the pores of the skin. When, therefore, the emunctories of the skin are obstructed, this vast amount of peccant matter is retained in the body; some of it remaining in the capillaries, while much of it is retained in the circulation, and thus, in both instances, giving rise to much irritation and fever. If the obstruction should prove permanent, these materials will be retained in the system, and continue to increase their mischief until they make their escape, *littles* by *littles*, through the other and more remote outlets.

But this is not the greatest mischief that arises from obstruction of the cutaneous exhalents: the functions of these organs involve the regulation of the temperature of the body. All these changes in the supply, metamorphosis, and waste of the materials, are attended with a corresponding evolution of *caloric* or heat.* Now, this heat, according to the laws of the economy, is intended to be regulated by the evaporation from the surface.† As there is no evaporation sustained while the pores are closed up, the heat of the body must evidently increase at no slow rate. It will thus be seen that in obstruction of the cutaneous exhalents, an evil of a two-fold character is evinced: first, a fever is generated by the retained perspiration, which, by its irritation, increases the activity of the circulation, and hence the increased supply of oxygen and consequent combustion: secondly, it perpetuates this fever by the extinction of the natural means of its removal, — that is, perspiration.

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* This is the source of *animal heat.*

† The disposition of the body to perspire, always corresponds with the amount of its sensible heat.

These mischiefs are liable to occur at any time that obstruction of the functions of the skin may take place; and the magnitude of the evil, will always correspond with the extent of the obstruction.

There are still other difficulties that are liable to occur from this cause: besides the bond of union between the different parts of the body, by means of the sanguiferous system of vessels, there is another — the nervous system. Now, the skin is more extensively supplied with nerves than any other part of the body: it must appear, therefore, that from the extensive nervous sympathy existing, that there is a great liability to mischief from this circumstance. The nerves are functionaries which superintend all the manifestations of vitality in the body. The morbid excitement, therefore, that is consequent on obstructions of the skin, must also be communicated to the entire system by this means. Whatever nervous depression or derangement there may be, it will always be attended with a corresponding depression of all the energies of the system.

There is still another chain of general association, *i. e.*, the lymphatic system. These vessels have their chief origin in the skin; their functions, therefore, are extremely much influenced by obstructions of this organ. Their secretions may also become contaminated by an obstructed state of the skin. Thus the now famishing organs of the entire body, instead of being supplied with fresh and healthy blood, are irritated and oppressed by this impure and noxious mixture.

The secondary evils resulting from obstructions of the skin, are also of considerable note. The whole system laboring under such an accumulation of morbific agencies, it is but reasonable to expect that, in addition to the acute attacks implicating the general system, as fevers, there is also a great liability to local inflammations and permanent chronic diseases, especially of those organs that from their construction, position, and use in the economy, are most exposed to the deleterious influences. The lungs are perhaps more exposed to this cause of mischief, than any other of the more important viscera; for while the blood must all necessarily pass through them, they are also liable to particular obstruction from the specific termination of the materials destined for expectoration. Hence irritation, congestions, and inflammation of this organ are so extremely apt to occur; — hence the cough attending our colds, — the oppressive pain, and other inconveniences, so frequently experienced in the breast. Nor does ulceration and consumption of the lungs occur less commonly from this than any other cause.

The intestines are next in point of exposure to this cause of disease. The frequency of derangements here is well known to all observers. The bowels, like the lungs, are compelled to act vicariously in the removal of the obstructed perspiration. Dysenteries, diarrhœa, cholera, &c., are of common occurrence.

It is unnecessary farther to particularize on the infinite, and endlessly varied forms of diseased action, that may result in the different parts of the system, from this prolific source: it must suffice to say that this is the most fruitful of all the causes of disease.

In view of all these facts, it cannot but appear obvious that the best remedy for this grand source of disease is of the greatest importance, and this *remedy* cannot be expected to be found elsewhere but in attention to the surface.

Dr. Ewell remarks on this head, in his lectures on Hygiene: — "The evacuations of the body, from its superfluous, impure, and noxious particles, are no less necessary than is nourishment. The same power which changes and assimilates our food and drink, likewise effects the due and timely evacuations of the secretions. It is an object of the first consequence, that nothing remain in the body which ought to be evacuated; and that nothing be ejected, which may be of use to its preservation. How many persons do we find who complain of bad health, notwithstanding every attention they pay to air, aliment, exercise, and sleep; while others enjoy a good state of health, though totally careless with regard to these particulars, and all owing to a difference in the state of the evacuations. If these be disordered, the most rigorous observance of dietic rules is insufficient to insure our health; while on the contrary, most of these rules may be neglected, for some time, without any injurious consequences, if the evacuations be regular."

> "The grand discharge, the effusion of the skin,
> Slowly impair'd, the languid maladies
> Creep on, and through the sick'ning functions steal;
> As, when the chilling east invades the spring,
> The delicate Narcissus pines away
> In hectic languor; and slow disease
> Taints all the family of flowers, condemned
> To cruel Heav'ns. But why, already prone
> To fade, should beauty cherish its own bane?
> O shame! O pity! nipt with pale quadrille,
> And midnight cares, the bloom of Albion dies."—*Armstrong.*

Bathing stands at the head of all our means of promoting the natural and healthy functions of the skin, its importance has been known, to some extent, from the earliest antiquity. The ancient Egyptians wer particularly fond of the practice. From the throne t the humblest subject this hygienic rule was observed and though the Nile afforded abundant facilities for bathing, and was frequented even by Pharaoh's daughter and her attendants, yet extensive *baths* were erected at public expense. The Hebrew lawgiver enjoined upon the Israelites the strict observance of the ordinance of *washing* and *bathing*.

Among the Greeks and Romans bathing, if possible, was still more popular; they, particularly the latter, erected *baths* of the most magnificent character: those of Caracalla were constructed with great taste. They are said to have been embellished with two hundred pillars, and furnished with sixteen hundred seats, and were thus sufficient to accommodate three thousand people at a time.

SPECIAL MODES OF BATHING.

I. VAPOR BATH.

There is no form of bathing so extensively useful as the vapor bath. Heat is the most relaxing and stimulating agent that we possess, and whenever applicable will seldom fail of the object of its use. The author has elsewhere shown that the vital phenomena are manifested only at particular temperatures, and that at certain points of this the animal functions entirely cease. It will appear then, that the diminution of the animal temperature is identical with disease. In all cases, therefore, in which the heat of the body is found to run low, as in typhus fever, cholera or cholera morbus, palsy, asphyxia, &c., the vapor bath is of incalculable service.

A moist heat seems to be peculiarly congenial to the body ; it generally invigorates and equalizes the circulation. This last circumstance makes the vapor bath especially valuable in local inflammation, particularly when implicating the pleura, or lungs.

A course of the bath eminently prepares the system for the easy, thorough, and successful operation of emetics, and it is a good plan always to precede the latter with it in difficult cases. So commonly are these two important means used together, by some practitioners, that they have inherited the common title of "*the course of medicine.*"

If the vapor bath did not fulfill any other indication than the promotion of the cutaneous excretions, it, as a remedial agent, would even then, perhaps, be equal to any other now known, and it is not probable that a more safe, prompt, and efficient means of restoring the excretions of the skin, will ever be discovered. Its value in this respect can only be fully appreciated when the numerous mischiefs already hinted at, as resulting from obstructed perspiration, are properly considered.

It is impossible to notice all the particular indications for its use. But as the most prominent of these are pointed out in the part treating on practice; it is unnecessary to be particular here.

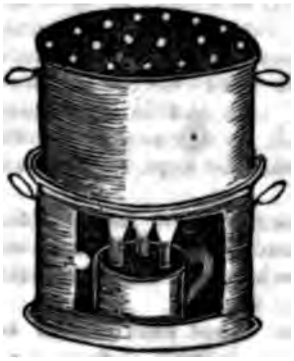
Various means of applying vapor to the body have been successfully used, the most common of which is to place the patient on a split-bottomed chair, and surround him with a quilt or blanket. A shallow vessel, containing about two quarts of boiling water, is now to be placed under the chair, and hot bricks, or sandstones, carefully put into it successively as they cool off. The good effects of this process are much enhanced by placing the feet of the patient in a vessel of water, as hot as can be borne. When the bath is administered to persons in a carpeted room, or where it is wished to avoid wetting the floor, two narrow boards may be placed over a tub, and the chair set upon them; then placing the vessel into the tub, and bringing the quilt close around it, the bath may be administered as already directed.

Another and still more convenient way of administering the bath, is to procure some half dozen or more joints of copper or tin tube, say ten inches in length, and from a half to an inch in diameter, — let the joints gradually diminish in size, from one end to the other, so as to make the smaller end of one fit or embrace the larger one of the other, — the size of every subsequent tube diminishing from the two middle ones to either end. The arrangement of the tube is calculated to admit of shoving back all the small ones into the two largest, with a view of more convenience in carrying them. In addition to this, it is necessary to procure a plate of copper or sheet-iron, sufficiently large to cover the opening of a large tea-kettle; through the centre of this, a hole should be made, large enough to admit of a screw, which should have a ring or flat top, so as to admit of turning it, and a shoulder below it to fit tightly on the plate. This screw should pass through the plate some four inches, and should enter the centre of a piece of iron, which should be half an inch wide, a fourth of an inch thick, and long enough to reach in a horizontal position, diametrically across the tea-kettle, about two inches below the plate through which the screw passes. All that is now necessary to the completion of the apparatus is a small elbow to the tube, and a hole midway between the screw and the edge of the plate, corresponding to the size of the elbow, and another one at any convenient place in the plate, to admit of replenishing the water during the operation of bathing. In order to make the plate rest on the mouth of the tea-kettle so as to confine the steam, it may be best to fasten a piece of woolen cloth to the under side of it, cutting it away around the holes.

When a bath is administered with this apparatus, the screw is to be passed through the plate, and made to enter the iron below, when the latter is to be put into a tea-kettle, one end first. Now by raising the screw with its fixings, so as to bring both ends of the iron below, against the sides of the tea-kettle, the plate may be tightly screwed down on the kettle. The latter, being half full of hot water, may now be placed on a hot stove or fire, and the tube inserted by its elbow, while the other hole is stopped with a cork. The other end of the tube is made to pass under the chair of the patient, who is to be surrounded with a quilt to confine the vapor.

Several very convenient fixings may be added to this tube: a slide, covering a hole in the tube, may be so constructed as to regulate the steam or temperature according to pleasure. A small box may be fixed with a cap on it, and with pieces of tube soldered into it, so as to fit into the main tube, at the junction between the two largest joints. This arrangement will admit of administering medicated vapor baths. Any volatile medicine, such as camphor, ammonia, turpentine, and the essential oils may thus be communicated to the body with the greatest facility, while the skin is so much relaxed, and the circulation active.

By the use of a spirit lamp, a still more convenient apparatus may be prepared — a representation of which is here given.



In the use of this apparatus nothing more is necessary than to place the patient on a chair, and surround him with a quilt, in the same way as for bathing with the heated bricks, and then placing the apparatus, fully trimmed, under the chair.

To trim or prepare the apparatus for bathing, the lamp, with cotton wicks, must be filled with alcohol, and the cap placed on the lamp-cup — the wick wetted with some of the spirit, and the lamp lit and placed in the furnace under the boiler, which is to be nearly full of boiling water. Medicated baths may be adminisuneasiness for which he is vaporized. The practitioner is sometimes deceived in the presence, as well as the extent of the perspiration, by mistaking the condensed vapor on the body for sweat. The surest sign of a free perspiration, is to see it profuse on the face.

It is a general practice either to shower the patient as he is taken out of the bath, with a basin of cold water, or to wipe him with a towel wrung out of the same, in order thus to excite a contraction of the skin, which is now unusually relaxed. This is a very good practice, and should generally be pursued, except in cases when it is intended to follow the bath with an emetic, or when the patient feels chilly, or, finally, when it is intended to keep him in a permanently relaxed condition, to promote some particular object in the treatment of his case.

The practice of applying cold water or the shower bath so suddenly after the hot vapor, seems objectionable to some persons. But however revolting the practice may seem to them, it is nevertheless safe and philosophical. All unacquainted with the practice, may be assured that they are less liable to *take cold* in this case, than they would be to take the same showering without being preceded with the vapor. "*Taking cold*" is a negative expression, and philosophically speaking, means *losing heat*, but in common parlance, it means a diminution of the animal temperature to the extent of producing injury to the system, by checking the excretions, &c. But it cannot be reasonable to suppose that an individual would be more likely to sustain injury from the loss of heat, when he has ten or fifteen degrees of it to spare, (as is the case after a good bath,) than he would be when the heat is of the natural standard, and there is none to spare. The temperature to which the vapor is necessary to be raised depends on circumstances, but generally from ninety to one hundred degrees is proper.

II. TEPID BATH.

The warm bath has been in use both as a hygienic means, and as a remedial agent, from the earliest age of medicine, but it is now almost entirely superseded by the vapor bath, as the latter is more convenient and efficient, and will, moreover, answer all the indications that can be fulfilled with the tepid bath. Nevertheless, at large bathing establishments the warm water is still considerably used.

In medical practice, the tepid bath is considerably serviceable in the treatment of many diseases of children, and in these cases, it is also perhaps more convenient than the vapor bath.

In the use of this bath for children, no fixings are necessary, more than a common wash-tub of suitable size. This is to be about two-thirds full of water, as warm as the child can bear. The patient, after taking some suitable stimulating or diaphoretic drinks, is then to be immersed into this, up to his neck, and continued there, if comfortable, until perspiration appears on the face. During the time the patient remains in the bath, the stimulating drinks should be occasionally repeated.

Adults, in the use of this bath, require bathing tubs or other vessels of suitable size, and should likewise have the water as warm as it can be borne. In order to be successful in producing a free perspiration on grown persons, it is necessary to take stimulant and diaphoretic drinks pretty freely.

During the use of this bath, it is always very serviceable to apply friction to the surface of the body, by the use of the hand. This aids in relaxing the skin, and in bringing the termination to the surface.

When the patient is taken out of the bath, he should be briskly rubbed with a dry towel, thus to give activity to the skin and in other ways promote the good effects of the bath.

The general indications to be answered in the use of this, are about the same as for the vapor bath.

> " Against the rigors of a damp, cold heaven,
> To fortify their bodies, some frequent
> The gelid cistern; and where nought forbids,
> I praise their dauntless heart. * * * * *

With us, the man of no complaint demands
The warm ablution, just enough to clear
The sluices of the skin; enough to keep
The body sacred from indecent soil.
Still to be pure, ev'n did it not conduce,
As much it does, to health, were greatly worth
Your daily pains. 'T is this adorns the rich;
The want of this is poverty's worst woe.
With this external virtue, age maintains
A decent grace; without it, youth and charms
Are loathsome. This the venal graces know;
So, doubtless, do your wives; for married sires
As well as lovers, still pretend to taste;
Nor is it less, all prudent wives can tell,
To lose a husband's than a lover's heart."—*Armstrong.*

III. SHOWER BATH.

The shower bath is more used as a hygienic means than as a curative agent. But there are many circumstances under which the application of cold water in this way, is very serviceable in the cure of disease. In feverish conditions of the body, more especially, showering with cold water is often of great utility. It has a tendency to equalize the circulation, and very remarkably promotes the functions of the skin. It is a very general practice among Reformed physicians, to follow the vapor bath with a cold shower bath, as already stated.

The best time for administering this bath is in the morning, when the body is most vigorous. If administered at a later period in the day, it is a good plan to precede it with a dose or two of some stimulating drink.

After the bath, the body should be well dried, and briskly rubbed with a coarse towel, in order thus to excite the functions of the skin, and produce a healthy reaction.

Apparatus of various forms of construction, have been used for the administration of this bath: but it is unnecessary here to give a description of any of them, as there are but few who will not be able to make or procure one of some form or other. The only principle to be observed in the construction of apparatus for this purpose, is to let the water be distributed in its descent, and to wet the whole body at the same time. This may be effected by causing it to pass through a tub or vessel having a perforated bottom. The quantity of water to be used at a time varies according to the nature of the case, or the wish of the subject or patient: the amount generally used, is from a quart, to several gallons. The water is also used at various temperatures, according to the object to be accomplished; but it is the usual practice to take it at the natural temperature of common spring water. In most cases of inflammation and fever, especially inflammatory fever, the shower bath is among the best means that we possess, if the patient is able to be up to receive it.

IV. SPONGING.

Sponging with cold water, as a curative means, is of the greatest importance in many cases of disease. In all cases of high fever, and as a local means, in violent inflammation, cold water applied in this manner is of incalculable benefit. It has a tendency to let down the heat very remarkably, and to equalize the circulation. In all cases when there is much heat and dryness of the skin, this potent means should not be neglected: it should be the first thing that is done by the practitioner, who will, in many instances, find it sufficient to break up the most violent paroxysm of fever.

In some obstinate cases, it may be necessary to roll the patient up in sheets wet with cold water, and to renew them as often as they grow warm, until the febrile symptoms give way. So efficient, indeed, is this part of the Reformed medical practice, that a class of practitioners have embraced it as an exclusive system, and use it in all cases of disease, and the success attending their treatment is not a little astonishing.

The water used for this purpose should be soft, fresh, and cold.

COMPOUNDS.

In the former edition of this work, an abridged system of pharmacy was given, which gave much satisfaction. But in the present, the part on practice is much extended, and comprises many formulas; so that it is considered unnecessary to put this additional expense upon the book in the present edition. Those, however, who wish something more on this subject, will find it in another work of the author. A few of the more important compounds, and such as are less commonly known, will suffice here.

ADHESIVE AND STRENGTHENING PLASTER.

Take of the green leaves of burdock and mullein, equal parts; bruise and put them into a kettle, with a sufficient quantity of water; boil them well; then strain off the liquor, pressing the leaves; boil down to the thickness of molasses, and then add a quantity of rosin equal in weight to that of your syrup, and one-third as much of turpentine; simmer until the water is all evaporated, when it may be thrown into a basin of cold water, and, as it is cooling, worked into sticks. The consistency of the plaster is regulated by the quantity of turpentine; if too thick or hard, add more of the latter, and *vice versa*.

Use. — This plaster is very good to relieve weakness in the *back*, *breast*, and *loins*. It should be spread on soft leather, and applied to the parts affected. It also answers very well as a common adhesive plaster for dressing wounds.

THOMSON'S HEALING SALVE.

℞	Beeswax,	1 pound,
	Salt butter,	1 do.
	Turpentine,	8 ounces,
	Balsam of fir,	12 do.

Simmer together and strain.

Use. — Very good to heal fresh wounds, burns, and other sores.

BLACK SALVE.

℞	Flax-seed oil,	1 pint,
	Sweet oil,	1 do.
	Red lead,	½ pound.

Simmer down to a salve, being careful not to burn it.

Use.—Few articles seem to do better in healing up old sores, and putrid ulcers. This preparation is very analogous to Shepard's salve or Judkins' ointment. Perhaps the better way to prepare this, is to put the oils in a pot, and heat them until they will scorch a feather, when the lead may be stirred in to form the salve. This salve is very highly recommended by Dr. J. Thomson.

GREEN SALVE.

℞	Stramonium ointment, ...	1 pound,
	Turpentine, ...	1 do.
	Bayberry tallow, ...	1 do.

Melt together, stirring it some, while cooling. If the bayberry tallow cannot be had, take half a pound each of rosin and sweet oil, in its stead.

Use.— The same as other healing salves. It is good for piles.

IODINE OINTMENT.

℞	Iodine, ...	½ drachm,
	Iodide of potassium, ...	2 drachms,
	Lard, ...	2 ounces.

Rub the whole together in a wedgewood mortar, so as to form a liniment of a mahogany color.

Use.—This is the only certain remedy now known for the cure of *bronchocele* or *goitre*, sometimes called *big-neck*. It is applied with friction over the part affected. It is also useful in all scrofulous tumors, and ulcers.

RUBEFACIENT OIL.

℞	Oil of capsicum, ...	1 ounce,
	Oil of lobelia, ...	1 do.
	Spirits of turpentine, ...	2 ounces,
	Oil of dittany, ...	1 ounce,
	Camphor, fine, ...	1 do.

Shake well together, and apply sparingly.

Use.— This preparation is the best rubefacient the author has ever used; it is permanent in its effects, and may be employed in all cases in which the more active rubefacients or liniments are required.

BATHING DROPS OR STIMULATING LINIMENT.

℞	Best alcoholic tincture of lobelia seed,	1 pint,
	Tincture of capsicum, best, ...	1 do.
	Oil of sassafras, ...	2 ounces,
	Oil of pennyroyal, ...	2 do.

Oil of wild marjorum, or dittany,	2 ounces,
Gum camphor,	2 do.
Castile soap,	2 do.

Shave the soap and camphor fine; put them into a bottle, and add all the remaining ingredients,—shake until the soap and camphor are dissolved, and it is fit for use.

Use.—This is one of the best and most convenient of all stimulating liniments, and may be advantageously used in all cases in which articles of this kind are indicated, especially in inflammatory swellings, sprains, bruises, rheumatisms, pains in the breast, side, bowels, &c.

IRRITATING PLASTER.

Take of mandrake-root, blood-root, Indian turnip, and poke-root, finely pulverized, of each half a pound; cover with alcohol, and let it stand until nearly dry. Melt four pounds of pure or strained Burgundy pitch, and add half a pound of pure Venice turpentine. Then stir in the powdered roots, and incorporate the whole well together. Simmer until formed into a soft plaster. —*Beach's Family Physician.*

Care is necessary in the preparation of this plaster, so that the powders are not burnt by the hot pitch and turpentine. It should be prepared on coals.

Use.—This plaster is designed to be applied over the parts, in cases of deep seated chronic affections, such as affections of the *liver*, *lungs*, *stomach*, *kidneys*, *spine*, and *sciatica* or *hip-disease*. Spread on a piece of leather and applied, it produces a severe itching; and in the course of a day brings out a crop of small pustules, which discharge matter.

COMPOSITION DIAPHORETIC POWDERS.

℞ Bayberry,	1 pound,
Pleurisy-root,	1 do.
Ginger,	1 do.
Colic-root,	2 ounces,
Aralia spinosa,	2 do.
Capsicum,	2 do.

Pulverize, and mix well by means of a seive.

Use.—This is a medicine of great value, and of very extensive application. Its great utility seems to arise from the combination of its stimulant and astringent properties, which, in this instance, are attended with effects much more permanent than those following either of these alone.

ANTIBILIOUS CATHARTIC POWDER.

℞ Podophyllin,	Equal parts. Mix.
Leptandrin,	

This is a very convenient cathartic for common use in fevers and inflammatory diseases. Dose one to three grains.

CATHARTIC PILLS.

℞ Podophyllin,	1 ounce,
Capsicum,	½ do.
Soft extract of boneset,	suf. quant.

Make into pills. Dose one to two pills.

ASTRINGENT TONIC COMPOUND.

℞ Bayberry,	Equal parts.
Geranium,	

Pulverize and mix. An ounce of this is infused in a pint of boiling water, and the infusion taken in wine glassful doses.

Use.— As an astringent for internal use in dysentery, cholera, diabetes, hæmorrhage, prolapsus, &c., there is perhaps, no compound superior. If the extracts of these articles are employed, the medicine will be more prompt and powerful.

BITTER TONIC COMPOUND.

℞ Poplar bark,	1 pound,
Dogwood bark,	1 do.
Bayberry,	1 do.
Golden seal,	1 do.
Colomba root,	1 do.
Cloves,	6 ounces,
White sugar,	5 pounds.

The whole to be finely pulverized separately, and well mixed.

Dose.— A tea spoonful is to be taken in any way the patient wishes, three times a day.

Use.— This preparation is intended to tone up and strengthen the system, after the force of the disorder is broken up by the use of the other medicines. The bitter tonics are very good to be occasionally used by persons of weak and lax habits, especially in the spring of the year. The bitters generally promote the appetite.

EXPECTORANT POWDER.

℞ Skunk cabbage,	1	pound,
Indian turnip,	½	do.
Blood-root,	¼	do.
Lobelia (*brown*,)	¼	do.

Pulverize very fine, and mix well. Dose, a tea spoonful in honey or molasses three times a day, or oftener if necessary.

Use.—To promote expectoration or the discharge from the lungs in asthma, inflammation of the lungs, pleurisy, whooping cough, croup, consumption, and colds, this is an invaluable remedy.

COMPOUND TINCTURE OF MYRRH.

℞ Myrrh,	1	pound
Capsicum,	1	ounce,
Brandy (*best 4th proof*,)	1	gallon.

Pulverize the myrrh and capsicum, and digest in the brandy for a seven days, and decant or pour off the tincture. Dose, a tea spoonful. This is the popular No. 6.

NERVINE AND ANODYNE TINCTURE.

℞ Alcoholic extract of cypripedium,	1	ounce,
Oil of anise,	½	do.
Camphor,	½	do.
Tincture of garden lettuce,	1	pound.

Dissolve the three first ingredients in the tincture and keep in tight bottles. Dose ten to thirty drops.

ANTISPASMODIC TINCTURE.

℞ Lobelia tincture, (*prepared from the seed*,)	1	pint,	Mix.
Tincture of myrrh,	1	do.	
Nervine tincture,	1	do.	

Dose, one tea spoonful or more, to be repeated as often as may be necessary.

Use.—This is an excellent antispasmodic, very useful in all cases of fits or spasms, tetanus, hydrophobia, neuralgia, colic, cholera, delirium tremens, suspended animation, palsy, erysipelas, dropsy, &c.

ALTERATIVE SYRUP.

℞ Sarsaparilla,	3	pounds,
Narrow-leafed dock root,	3	do.
Dandelion root,	2	do.
Black alder bark,	2	do.

Guiacum shavings,	2	pounds,
Burdock root, or seeds,	2	do.
Sassafras, bark of the root,	2	do.
Mandrake root,	2	do.

Boil in equal parts of whiskey and water sufficient to cover the ingredients in the kettle, for two hours; strain and boil down to half the quantity; add half a pound of clarified sugar to every pint of syrup; bottle up and keep in a cool place.

Dose. — From a tea spoonful to a table spoonful three times a day.

Use. — It is hardly possible to find a better alterative medicine than this, and it is certain that all who observe its effects in venereal diseases, scrofula, consumption, and many cutaneous diseases, must admire it.

EXPECTORANT SYRUP.

℞	Wild cherry bark,	2	pounds,
	Spignet-root,	1	pound,
	Pleurisy-root,	1	do.
	Black cohosh root,	½	do.
	Blood-root,	½	do.
	Liquorice-root,	½	do.
	Elacampane,	½	do.

Bruise, and boil very slowly in a sufficient quantity of water and whiskey, (equal parts,) to cover the whole in the kettle, until the strength is extracted, or for about two hours; strain off the liquid, and boil down to half the quantity, and add to every quart, two ounces of skunk cabbage root, and one ounce of Indian turnip root, all very finely pulverized. Now take to every quart of this, three ounces of good tincture of lobelia, and dissolve in it one ounce of oil of anise, to every pint of the tincture, and add this to as much good sugar-house molasses as there is syrup; mix to every quart of this molasses, two ounces of balsam of tolu, dissolved in half a pint of hot alcohol. Now add the whole together and mix well.

Dose. — From a tea spoonful to a table spoonful, often repeated.

Use. — This is one of the best medicines for pulmonary diseases that can be made; it brings on a copious expectoration, and keeps it up. It is likewise very healing to the lungs. It is particularly useful in all cases of consumption, pleurisy, bad colds, asthma, whooping cough, &c.

EXTRACTS.

The simplest way in which extracts are made is by boiling the substance, (crushed or cut fine,) from which the extract is to be prepared, in water, until the strength is extracted, and then straining the decoction and evaporating it down to the proper consistence. Care must, however, be taken not to burn it when it is reduced low; and to avoid this the process should always be conducted in a water-bath. A very convenient way to manage it is to put the extract, after it has attained the consistence of thin syrup, in a basin, and then placing this into a kettle or boiler in water, and thus reducing the extract to the proper consistence.

When the virtues of the medicines consist in a resinous or fixed oily principle, water will not extract them; and in this case alcohol is required instead of water.

When alcohol is employed as the menstruum in preparing the extract, the medicine, after being crushed, should be digested in the alcohol, exposed to a hot sun heat, until the strength is extracted, as is done in common tincturing. The tincture, after being filtered or well strained, may then be placed in a common still or retort, and heat applied to carry over the alcohol, while the extract remains behind. The alcohol by this process is saved for repeated use,

The extract should be drawn off from the still before it attains to much consistence, and placed in a basin over a water-bath, and thus reduced. If the virtues consist entirely in a resin or fixed oily substance, this may be precipitated by adding three or four times the quantity, or more, of cold water to the extract, when it attains the thickness of molasses or honey, and is removed from the fire. Some articles require to be precipitated at an earlier stage than others. It may be observed as a general rule, that the earlier the precipitation is made, the fairer will be the product.

The author's experiments on this method of preparing extracts, were rewarded about four years since by the discovery of the resinoid principle in podophyllum, commonly called *podophyllin*, and also resinous principles in cypripedium (*cypripedin*), leptandria (*leptandrin*), myrica cerifera (*myricin*), and sanguinaria (*sanguinarin.*) He communicated his discoveries to his medical class in the Botanico-Medical College of Ohio, in the session of 1849; and was amused to learn that several of his pupils, and others afterward, claimed the honor of the discovery for themselves.

It is important to bear in mind, however, that the plan of precipitating from the alcoholic solution by means of water, is adapted only to the preparation of such articles as are soluble in alcohol, and insoluble in water, and which at the same time are not so volatile as to be dissipated by the heat required in the distillation. Other articles may yield a product by the process, but this may not possess *all*, nor yet *any*, of the virtues desired.

TABLE OF WEIGHTS.

APOTHECARIES' WEIGHT. *

20 grains (*gr.*)	make	1 scruple,	marked	scru.
3 scruples	"	1 drachm,	"	dr.
8 drachms	"	1 ounce,	"	oz.
12 ounces	"	1 pound,	"	℔.

AVOIRDUPOIS WEIGHT.

16 drachms (*dr.*)	make	1 ounce,	marked	oz.
16 ounces	"	1 pound,	"	℔

TABLE OF MEASURES.

APOTHECARIES' OR WINE MEASURE.

4 gills (*gls.*)	make	1 pint,	marked	pt.
2 pints	"	1 quart,	"	qt.
4 quarts	"	1 gallon,	"	gal.

WEIGHTS OF FLUID MEASURES.

As there is much difference in the sizes of spoons and other utensils in domestic use, which are often used as graduates in administering to the sick, a table showing their respective weights may not, therefore, be altogether useless.

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* Apothecaries' weight is the same as troy weight, only having different divisions between the grains and ounces: the latter embracing the *pennyweight*, which contains twenty-four grains; twenty of which make an ounce.

A tea spoonful is about equal to one fluid drachm, or about sixty drops.
A table spoonful is very nearly equal to five fluid drachms.
A wine glass will contain about two fluid ounces.
A tea cup will contain about four fluid ounces.
A pint is very nearly equal to a fluid pound.

It will be observed that this last table is made out according to the weight and measure of water, and that many medical fluids may differ somewhat from this, according to their density. This must rather be considered as an example of the average and comparative sizes of domestic utensils.

GLOSSARY.

Abdomen. The belly.

Abscess. A tumor containing pus, or a collection of matter.

Abnormal. Unnatural; irregular.

Absorbent. A vessel that absorbs or takes up fluids.

Acetabulum. The socket that receives the head of the os femoris or thigh bone.

Acid. Sour; that which effervesces with alkalies.

Acrid. Sharp, burning, or pungent.

Accoucheur. A male midwife, or one that attends in parturition.

Acuminate. Taper-pointed; a narrow or linear point: the point usually inclines to one side.

Acute. In botany it means sharp pointed, but less gradually so than acuminate; in pathology the term is applied to diseases which are of short duration, but attended with violent symptoms; it is opposite to *chronic.*

Albumen. A viscid animal or vegetable principle, resembling the white of eggs.

Alkali. A substance which is capable of uniting with acids and destroying their acidity: among the most common are potash, soda, &c.

Alterative. A medicine capable of changing the condition of the system without producing any sensible increase of the evacuations.

Alveola. The sockets for the teeth.

Alvine. Belonging to the intestines.

Ament. Flowers on chaffy scales, and arranged on a slender stalk.

Amplexacaulis. The base clasping the stem.

Amenorrhœa. An obstruction of the menses.

Anasarca. Dropsy of the cellular membrane.

Anastamose. Joining together.

Annual. Yearly.

Annulated. Having rings around; as in ferns, &c.

Anodyne. That which relieves pain.

Antacid. Substances that neutralize acids: some of the most common are soda, potash, &c.

Antiseptics. Medicines that guard against mortification.

Anthelmintics. Medicines which destroy or expel worms.

Antilithics. Substances which guard against, or remove urinary calculi or gravel.

Antispasmodics. Medicines which relieve cramps or spasms.

Aperient. That which gently opens the bowels.

Apex. The top or summit.

Articulated. Jointed.

Ardor. Heat.

Aroma. Fragrance; scent.

Aromatic. Sweet-scented, fragrant.

Arthroida. A joint movable in every direction.

Ascites. Dropsy of the belly.

Assimilation. The conversion of food into nutriment.

Astringent. That which corrects looseness and debility by rendering the solids denser and firmer, known by its puckering effects on the mouth

Atony. A state of inactivity.

Atrophy. A wasting, without any sensible discharge.

Axillary. Axils; leaves of fruits are said to be axillary when they proceed from the angle formed by the stem and branch, *Biennial.* In botany, plants are said to be biennial when they are of two years' duration, putting forth leaves the first year only, and bearing blossoms and seed the second.

Bifurcation. The condition of being divided, forked, or parted.

Bract. Floral leaf; a leaf near the flower, which differs from the rest of the same plant.

Broncha. The air-cells of the lungs.

Cachexia. A general weak, relaxed, and disordered state, without fever.

Cadaverous. Deathlike; having the appearance of a dead human body; wan; ghastly; pale.

Calculi. Small limestones, found in the cavities of the body, as in the urinary and biliary cysts.

Callus. Bony matter, found about fractures.

Calor. }
Caloric. { Heat.

Calyx. The flower-cup or outer covering of flowers.

Campanulate. Bell-form.

Canula. A small tube, usually belonging to sharp instruments designed for removing fluids.

Capillary. Hair-like; a term used to designate those small vessels found between the termination of the arteries and the commencement of the veins, and in which the change from arterial to venous blood is effected.

Capsule. A little seed vessel that opens when the seed ripens.

Carminative. That which expels wind.

Cartilage. Gristle; a white semi-bony substance.

Catamenia. The monthly evacuation peculiar to the female sex; the menses.

Catheter. A small tube designed for drawing the urine.

Caudex. The main root of plants.

Cautery. A burning application.

Cellular. Containing cells, or cavities.

Cerebellum. The lesser brain.

Cerebrum. The brain, or anterior and larger portion of the soft mass within the skull.

Cespitosi. Turf.

Chronic. A term applied to diseases which are of long continuance, and usually without much fever.

Chordee. A morbid contraction and curvature of the corpus cavernosum or body of the penis.

Cicatrix. The seam, scar or mark remaining after the healing of a wound, or ulcer.

Coma. } Strong propensity to
Comatose. { sleep.

Combustion. Rapid oxydation, or the combination of oxygen with other elementary bodies with a flame.

Coagulation. A thickening or formation of fluids into a more dense or solid condition, as the curdling of milk, &c.

Coalesce. To unite, to join into one, to run together.

Colliquative. Excessive or weakening.

Congestion. A preternatural collection of blood or other fluids; thus we speak of a congestion in a part when the vessels are much crowded or over distended.

Concave. Cup-like, hollowed.

Concrete. Collected, united into a solid form.

Confluent. Running together, meeting in their course.

Congenital. Born together; a disease or defect is said to be congenital when existing from the time of birth.

Conglobate. Round; collected into a ball or roundish form.

Constipation. Costiveness; a confined state of the bowels.

Contagious. Catching; capable of being communicated.

Convalescence. The state or condition of recovery.

Convoluted. Rolled up in a cylindrical form.

Cordate. Heart-shaped.

Coriaceous. Resembling leather.

Corolla. The most prominent and beautiful part of flowers, usually inclosing the stamens.

Corpse. The dead body.

Cortex. The bark or skin of a plant or tree.

Corymb. A kind of inflorescence in which the flower stalks spring from different hights on the common stem, and form a flat top.

Coryza. An increased discharge of mucus from the nose.

Crassamentum. The red particles of the blood.

Crepitus. A sharp crackling sound.

Cutaneous. Belonging to the skin.

Cutis. The skin.

Cutis vera. The true or inner skin.

Cuniated. *Cuniform.* Wedge-formed.

Decarbonization. The act of giving off carbon.

Deglutition. Swallowing.

Dentate. Toothed.

Delirium. Alienation of mind; craziness.

Demulcents. Soothing, lubricating, and mucilaginous applications.

Depletion. The act of emptying, particularly the removal of the blood, as by venesection.

Depuration. The act of purifying.

Derm. The true skin.

Detergent. That which scatters or disperses.

Diagnosis. The distinguishing of particular diseases; the symptoms by which any disease is known from all others are called its diagnostics, or diagnostic symptoms.

Diaphoresis. Perspiration.

Diaphoretic. That which, being taken internally, produces diaphoresis, or perspiration.

Diaphragm. The midriff or muscular division between the chest and abdomen. — It assists in respiration.

Diathesis. Condition of the body, as the inflammatory, &c.

Discuss. To scatter.

Desquamation. Scaling off.

Dichotomous. Forked.

Dispnœa. Oppressed breathing.

Digitate. Like fingers.

Dolor. Pain.

Duodenum. The first portion of the intestines; the part in which the food becomes mixed with the bile.

Efflorescence. Redness; in botany it means the powder substance found on *lichens;* the flowering of plants.

Effluvia. Exhalations from bodies in a state of decomposition, as from carcasses, &c.

Electuary. A compound made by combining medical substances with saccharine matter, as honey, molasses or treacle.

Eliptic. *Eliptical.* Oblong-oval; a defective circle by joining two fractional sections of a circle.

Emaciation. Leanness; a falling away of the flesh.

Emesis. Vomiting.

Emetic. A vomit or puke.

Emmenagogue. That which tends to promote the menstrual discharge.

Emollient. That which has a tendency to render parts more soft or pliable, as well as to relieve irritation and inflan mation.

Enecia. Continued fever.

Enema. An injection.

Ensiform. Sword-form; tw edged, as in the flag or iris.

Enteritis. Inflammation of th bowels.

Entozoa. Worms.

Epidemic. A disease of gener prevalence.

Epidermis. The cuticle, sca or outer skin.

Epigastric. From 'epi,' *upo* and 'gastricus,' *stomach*, i. upon the stomach; that divisio of the abdomen immediatel before the stomach.

Erethismus. Increased sensibil ity and irritability.

Erosion. The act of eatin away.

Eructation. The ejection or rai ing of wind from the stomach

Erysipelas. Inflammation of th skin; St. Anthony's fire.

Eschar. The dead substance pro duced by applying caustic, &c

Evacuants. Medicines that pro mote the excretions of th body.

Exacerbation. An increase i the violence of symptoms o disease.

Exanguous. Without blood.

Exanthema. } Acute eruptiv
Exanthemata. } disease.

Excitants. Stimulants.

Excoriate. To remove the ski by means of acrid substances to gall.

Excrescence. A preternatural tu mor growing on the body, as wart, polypus, &c.

Excretion. Matter thrown fro the surface; a collection o matter on the surface.

Exotic. Plants are called "ex otic" when brought fro foreign countries.

Exostosis. An unnatural bon extuberance.

Fungus. Proud flesh.

Fusiform. Spindle-shaped or tapering.

Ganglion. A knot; in anatomy the term is applied to certain natural knot-like enlargements, that occur in the nerves.

Gangrene. Mortification; the first stage of mortification.

Gastric. ⎫ Pertaining to the
Gastro. ⎭ stomach.

Gastritis. Inflammation of the stomach.

Gelatin. One of the primary compounds of animal and vegetable bodies, soluble in water, but not in alcohol. When dissolved in water, it thickens, on cooling, into a well known tremulous elastic substance, called jelly.

Glabrous. Smooth; having an even surface.

Glairy. Resembling the white of an egg; of a viscid, transparent appearance.

Glaucous. Sea-green; mealy, and easily rubbed off.

Gonorrhœa. A morbid slimy discharge in venereal complaints.

Gutta Serena. Blindness occasioned by a diseased retina.

Hastate. Shaped like a halbert; it differs from arrow-shaped in having its side processes more distant and divergent.

Hepatic. Pertaining to the liver.

Hepatitis. Inflammation of the liver.

Herbaceous. Pertaining to herbs.

Hereditary. That which has descended from an ancestor.

Herpes. Tetter.

Hernia. Rupture.

Hematuria. The voiding of blood with the urine.

Hemoptysis. A spitting of blood; bleeding from the lungs.

Hemorrhage. Violent flow of blood

Hemorrhoids. Piles.

Homogeneous. Of the same kind or nature; consisting of similar parts.

Humors. Liquids; the fluids of the body, as the blood, bile, and humors of the eye.

Hydarthus. White-swelling.

Hydragogue. A medicine that causes watery discharges.

Hydrocardia. Dropsy of the heart.

Hydrocele. Dropsy of the scrotum.

Hydrometra. Dropsy of the womb.

Hydrocephalis. Dropsy of the brain.

Hydrothorax. Dropsy of the chest.

Hydrops. Dropsy.

Hydrophobia. Rabidness; madness from the bite of rabid animals.

Hygiene. A plan of restoring or preserving health without the use of medicine, as by dieting and proper exercise.

Hyperæmia. Fullness of the blood-vessels.

Hypertrophy. Enlargement.

Hypochondriasis. ⎫ Vapors; low
Hypochondria. ⎭ spirits; the blues or horrors.

Hypocondrium. That portion of the abdomen that lies on either side of the epigastric region, immediately below the false ribs.

Ichor. A sanious matter flowing from ulcers.

Icterus. The jaundice.

Idio-miasmata. A miasm arising from the human body.

Idiopathic. A disease is said to be idiopathic when it has an independent origin, that is, one that is not symptomatic.

Idiosyncrasy. Peculiarity of disposition; a disposition of the system that may render the person peculiarly liable to certain diseases, which other per sons, not having this predisposition, would escape from.

Ileum. The last or lower portion of the small intestines.

Imbricate. Lying over, like scales, or shingles on a roof.

Indicate. To point out.

Indication. Course pointed out ; an object to be acomplished in the cure of disease ; a course to be pursued in the treatment of a case.

Indurata. Hardened.

Infection. Contagion ; the principle or cause of a disease.

Inflated. Filled with wind : in botany the term is applied to capsules or vesicles which are hollow or naturally contain air.

Infusion. A tea ; a preparation made by infusing a medical substance in a fluid.

Ingesta. The substances received into the stomach.

Ingestion. The act of receiving into the stomach.

Inorganic. Not in an organized state.

———*itis.* The termination '*itis*' indicates inflammation : whenever, therefore the name of any organ terminates in this way, that organ is to be understood to be in a state of inflammation ; thus the Latin name of the stomach is *gastricus*, and inflammation of the stomach is called *gastritis* ;—the name of the intestines is *entera*, and inflammation of the bowels is called *enteritis*, &c.

Jejunum. The second portion of the small intestines, so called because it is usually found empty.

Kino miasmata. Vegetable miasma.

Labiate. Liped.

Labia puendi. External lips of the female organs of generation.

Laceration. The conditio
being torn ; a wound pro
by the tearing of the fle

Lanceolate. Spear-shaped :
row, with both sides grad
terminating to a point.

Larynx. The cartilaginous
ity situated behind the t
at the commencement o
windpipe.

Lateritious. Brick-like ; lik
dust of brick.

Linear. Long and narrow
both sides parallel, like
blades of grass.

Lepra. The leprosy.

Lesion. An injury or wou

Ligaments. Any thing that
in anatomy, a strong
band by which the bone
joined together.

Ligate. To tie or bind.

Ligature. The thread or
by which any thing is tie

Livid. Black and blue ;
colored ; purple.

Lobed. Divided into lobes

Lues. A pestilence, pois
plague.

Lues venera. The venereal
son.

Lymph. The pale rose-c
fluid contained in the ly
atics.

Lymphatics. A very del
set of vessels found in a
dance in most parts of
body : they absorb and
the lymph.

Mania. Madness, insanity

Meninges. The two memb
that envelop the brain
duramater and *piamater*.

Metamorphosis. A chang
form, relation or shape ;
times it means the matt
substance changed.

Metastasis. A translatio
change to otner parts.

Miasmata. } Malaria ; a p
Miasma. } erous vapor
ing from marshes or

places containing much vegetable or animal mold.

Midrib. The main or middle rib of a leaf, running from the stem to the point or apex.

Midriff. The diaphragm or broad muscular partition between the chest and abdomen.

Miliary. Of the appearance of millet seed; a miliary eruption is one whose vesicles resemble millet seeds.

Mobility. Capacity of being moved; moving faculty.

Morbid. Diseased.

Monœcious. A plant is said to be monœcious when it has both pistillate and staminate flowers.

Mucus. A viscid fluid secreted by the mucous membrane.

Muscles. The organs of motion in animals, being bundles of fibres united and surrounded by cellular membrane; they constitute the flesh.

Nausea. A sickness at the stomach, and inclination to vomit, yet not sufficient to effect it; it is sometimes produced by a disgusting smell, taste, or sight.

Nephritis. Inflammation of the kidneys.

Neurology. The science of the nerves.

Neuralgia. Painful affection of the nerves.

Nidorous. Resembling the taste and smell of roasted meat.

Normal. Regular; natural.

Nosology. A systematic arrangement or classification of diseases.

Nutritive. Having the quality of nourishing.

Oblong. Longer than oval, with both sides parallel.

Obovate. Ovate with the narrow end toward the stem or place of insertion.

Obtuse. Blunt; rounded: not acute.

Odor. Smell; scent; perfume.

Œdema. Swelling; a soft swelling, as by a collection of water.

Œdematous. Doughy; pertaining to œdema.

Œsophagus. The gullet, or channel leading to the stomach.

Omentum. The caul or epiploon, a membraneous covering that drops or hangs over the front of the entrails.

Opaque. Impervous to light; dark; obscure; not transparent.

Ophthalmia. A disease of the eye.

Ophthalmitis. Inflammation of the eyes.

Organic. Pertaining to an organ or organization.

Os. Bone; mouth.

Ossify. To turn to bone.

Oval. } Of the shape of an egg.
Ovate. }

Oxydation. The chemical union of any substance with oxygen.

Oxygen. A subtile gaseous element, which is a constituent of the atmosphere, as well as most organic substances: it is the supporter of combustion, and almost the only acidifying principle: it is this element in the atmosphere that supports respiration, and it is upon its union with combustible substances in the body that the latter is dependent for its heat.

Palmate. Hand-shaped, so divided as to resemble a hand with the fingers spread.

Palpitation. A beating of the heart, particularly a preternatural beating, such as is occasioned by a fright, or some violent agitation.

Pancreas. A long gland situated on the duodenum, or rather between this and the bottom of the stomach: it secretes a fluid that is discharged into the duodenum, and assists in digestion.

Panicle. A loose, irregular bunch of flowers, with sub-divided branches, as the oat.

Paracentitis. In surgery, the operation called tapping.

Paralysis. Palsy; the loss of the power of muscular motion.

Parenchyma. In anatomy, a loose spongy substance; the spongy cellular tissue that connects parts together, particularly those of the viscera, as the air-cells and blood-vessels in the lungs, and the absorbents, arteries and veins in the liver; in botany, it means nearly the same thing.

Paronychia. A whitlow or felon.

Parotid. Near the ear, or pertaining to the part of the ear.

Paroxysm. An obvious increase or aggravation of the symptoms of disease, which may last longer or shorter and then decline.

Pathological. Pertaining to pathology.

Pathologist. One versed *in*, or treating *on* pathology.

Pathology. The doctrine or law of diseases; that which treats on the nature of diseases.

Peccant. Morbid; bad; corrupt; injurious.

Peduncle. A stem bearing flowers and fruit.

Peltate. Having the petiole attached to some part on the under side of the leaf, as in the *mandrake*.

Pendant. / *Pendulous.* } Drooping; hanging down.

Penis. The cylindrical male organ of generation.

Perennial. Lasting more than two years.

Perfoliate. Having the stem running through the leaf.

Pericardium. The membraneous sack that surrounds the heart.

Periosteum. The membrane that covers the bones.

Peristaltic motion. The ver ular motion of the intestine

Peritoneum. The membrane which all the viscera of abdomen are surrounded.

Peritonitis. Inflammation of peritoneum.

Permeate. To pass through pores of anything.

Pest. / *Pestis.* } The plague.

Petals. The leaf of the cor in flowers; it is usu colored.

Petechiæ. Red or purple sp which resemble a flea bite.

Petiolate. Pertaining to pe

Petiole. The stalk which s ports the leaf.

Pharmacy That part of m ical science that treats on preparation, compounding, preservation of medical s stances; the business of apothecary.

Phlegm. A thick, white or se transparent, tenacious f commonly secreted in lungs; in chemistry it me water of distillation.

Phlebitis. Inflammation of veins.

Phlegmasia. Inflammation.

Phlegmonic. / *Phlegmonous.* } Inflammator

Phrenitis. Inflammation of brain.

Phthisis. Consumption of lungs.

Physiology. That science wi contemplates the prope and functions of animals plants; the science of li

Physiological. Pertaining physiology.

Pinnate. Winged leaves called *pinnate* when they composed of two rows of s leaflets situated on both sid a common petiole, as in locust, rose, &c.

Pleura. The membrane wh

lines the internal surface of the chest, covernig its viscera; it forms a great process, — the mediastinum which divides the thorax into two cavities.

Pleuritis. Pleurisy; inflammation of the pleura.

Pneumonia. Inflammation of the lungs.

Pollen. Fine flour, as the dust that flies in a mill; in botany it means the fine dust that is contained in the anthers of flowers.

Post mortem. After death.

Præcordia. The region immediately in front of the heart; but it is frequently applied to the whole of the fore part of the thorax.

Priapism. A preternatural or continual erection of the penis.

Primary. First in order of time, importance, cause, or effect.

Procumbent. Lying down.

Prolapsus. A falling down; descent.

Prognosis. The foretelling of the event of diseases, by the symptoms and other circumstances in the case.

Prognosticate. To foreshow; to tell the future events by the present.

Prophylactic. Preventive.

Prostate. The name of a gland in the male, situated just before the neck of the bladder, and surrounding the beginning of the urethra.

Proximate. Nearest; next: in pathology it is applied to the immediate effects of the exciting cause of disease, and hence may be said to be the disease itself.

Ptyalism. Salivation; an increased discharge of saliva from the mouth, often brought on by the use of mercury.

Pubescent Hairy; downy; or woolly.

Pubis. *Pubes.* Hair; down; or wool; in anatomy the shear-bone is called os *pubis* because the integuments over it are covered with hair in the adult.

Pulmonary. Pertaining to the lungs.

Pulp. A soft mass; the soft succulent part of a plant, or its fruit.

Pultaceous. Macerated. soft; nearly fluid.

Pungent. Sharp; acrid; piercing; biting.

Puriform. Pus-like.

Pus. A yellowish white matter secreted in suppurations and ulcers, and always present in the healing of lesions in the solids.

Putrid. In a state of dissolution or disorganization; corrupt; rotten.

Pyriform. Pear-shaped.

℞. Recipe; take of.

Raceme. A kind of inflorescence in which the flowers are arranged by simple pedicels on all sides of a common peduncle, as in the currant and grape.

Radii. Rays.

Radical. Pertaining to the root; growing from the root.

Radicle. A minute fibre of a root.

Radix. A root; the part of a plant that is in the ground.

Reflected. Turned backward; thrown back; returned.

Resuscitation. The act of reviving from apparent death; the state of being revived.

Respiration. The function of breathing.

Roseola. Measles.

Rubefacient. That which produces redness when applied to the body.

Rubor. Red; redness.

Rhizoma. A large fleshy or woody part or organ of a root; analogous to a stem under ground, which is neither a tuber nor a bulb.

Saccharine. Pertaining to sugar; sweet.

Saliva. The fluid which is secreted by the salivary glands, and serves to moisten the mouth and tongue, as well as to assist in mastication.

Sanative. Healing; having the power to heal.

Sanguiferous. Conveying blood; the sanguiferous vessels are the arteries and veins.

Sanguinary. Bloody; a medical plant.

Sanguineous. Abounding with blood; plethoric.

Sanies. A thin limpid and greenish matter discharged from ulcers.

Sanious. Pertaining to sanies.

Scabies. The itch.

Scape. A stalk that springs from the root, and supports flowers and fruit, but no leaves, as in the dandelion.

Scarlatina. Scarlet fever.

Sciatica. The hip disease.

Scirrhous. Pertaining to scirrhus.

Scirrhus. A hard or indurated tumor, which at first is of the natural color, but the disease is apt to assume a malignant form, when the skin may turn purple or livid, and the surface irregular, and the tumor proceed to ulceration. In this condition the affection generally receives the name of *cancer.*

Scorbutic. Pertaining to scorbutus.

Scorbutus. Scurvy.

Scrofula. } King's-evil.
Scrophula. }

Scrofulous. Pertaining to scrofula.

Scrotum. The pendulous pouch containing the testes.

Secretion. The act of secerning, or producing specific collections from the general circulating mass, as the bile, saliva, mucus, &c.; the matter secreted.

Segment. A part or principal division of anything, as a leaf, calyx, or corolla.

Semina. Seed.

Sensorial. Pertaining to the sensorium or seat of sense.

Serum. The thin or watery part of the blood; also the same of milk.

Serrate. Jagged; notched like saw-teeth.

Sessile. Sitting down; placed immediately on the main stem without a footstalk.

Sialagogue. That which promotes salivation.

Sinapism. A mustard plaster.

Sinuate. A leaf is said to be sinuated when its sides or margins have breaks in them or are hollowed out like a bay.

Slough. To separate from the live flesh; a dead part that is separating; a mortified part.

Sloughing. Separating in a dead mass.

Solution. In pharmacy, it means a liquid containing some substance in a dissolved condition.

Sordes. Foul matter; dregs; filthy matter. Sordes are apt to collect about the teeth of persons that neglect cleaning them: this term is also equivalent with *sanies* and *ichor,* the offensive matter running out of old ulcers and sores.

Sordid. Filthy; dirty; foul.

Spasmus. Spasm.

Spasmodic. Pertaining to spasm.

Spadix. An elongated receptacle of flowers.

Spathe. A sheathing calyx opening lengthwise on one side which may inclose the flower or fruit.

Specific. A remedy that has a

special effect; or which certainly cures any particular disease.

Sphacelus. Mortified parts; mortification.

Spike. A kind of inflorescence in which the flowers are sessile, or nearly so, and thus forming a spiral projection, as in the mullein and plantain.

Sputa. Spittle.

Stimulants. } Excitants, as pepper, &c.
Stimuli. }

Stipe. The stem of a fern or fungus; the stem of the down of seeds, as in the dandelion.

Stipule. A leafy appendage, situated at the base of leaves or petioles.

Stomachics. Medicines that regulate the stomach and set pleasantly.

Striated. Marked with fine parallel lines.

Struma. Scrofula; it is also applied to bronchocele.

Strumous. Pertaining to scrofula; scrofulous.

Stertorous. Snoring.

Sub. In anatomy this word is prefixed to others when it is desired to speak of parts that lie under; it means, therefore, that this lies under the other part whose name it precedes: thus, subscapularis,—under the scapula; submaxillary,—under the maxilla or jaw, &c. In pathology it is used to express an imperfect or feeble state of disease; as subacute, not acute, less than acute, &c. In botany when shape or any any other character cannot be precisely defined, sub is prefixed to the term used; it then means nearly so, as subrotundus,—roundish; subsessile, not quite destitute of footstalk, &c. In chemistry the term is applied when a salifiable base is predominant in the compound, there being a deficiency of the acid, as subcarbonate of potassa, subcarbonate of soda, &c.

Subsultus tendium. A twitching of the tendons, arising from convulsive jerking of the muscles.

Sudamina. Small vesicles that come on suddenly without fever.

Sudorifics. Medicines which promote sweating.

Suppuration. That process by which pus is formed in an inflamed part.

Syncope. Fainting.

Synocha. Inflammatory fever.

Synochus. A fever of a subinflammatory character.

Synovia. Joint water.

Syphilis. The venereal disease.

Temporal. Belonging to the temple.

Tenesmus. A continual inclination to go to stool without a discharge.

Tendon. The white cord or shining end of muscles; sinews.

Terminal. Extreme, situated at the end.

Ternate. Three together, as the leaves of the clover.

Tetanus. A spasmodic disease.

Thorax. The chest, or cavity within the breast.

Thyrse. A panicle which is dense.

Tissue. Texture; a general name for parts.

Tonic. That which strengthens, tones, or braces up.

Tonsilitis. Inflammation of the tonsils.

Tormina. Severe pains.

Trachea. The windpipe.

Translucent. Admitting light, but yet not so as to render objects distinctly visible; semi-transparent.

Transude. To pass through the pores of any thing.

Triennial. That which is of three years' duration; every third year.

Trilobed. Three-lobed.

Triple. Three-fold; three united; three times.

Tuber. A knot or bulbous limb; a solid fleshy knob.

Tubercles. Knots, lumps, or tumors.

Tumefaction. Swelling.

Tumor. *Tumour.* A swelling.

Tunica. *Tunic.* A membrane or covering.

Tunica vaginalis. A sheathing tunic; the tunic embracing the spermatic chord and vessels.

Tussis. A cough.

Typhoid. The term typhoid is now applied to a distinct species of fever whose primary seat is in the intestines; it has many of the symptoms of typhus.

Typhus. A species of continued and eruptive fever that is characterized by great debility, and a tendency of the fluids to putrefaction; the pulse is weak but corded.

Umbilical. Pertaining to the navel.

Umbilicus. The navel.

Umbel. A kind of inflorescence in which the flower stalks diverge from a centre, like the sticks of an umbrella, as in the parsnip, fennel, &c.

Umbelliferous. Pertaining to or bearing umbels.

Uniflora. *Uniflorus.* One-flowered.

Urethra. The membraneous canal that conveys the urine from the bladder.

Ureteres. The two membraneous canals that convey the urine from the kidneys into the bladder.

Urticaria. The nettle-rash.

Uterus. The womb.

Vaccina. The cow-pox.

Vagina. The canal leading to the womb.

Variola. The small-pox.

Varioloides. Modified small-pox.

Vermifuge. A medicine that destroys or expels worms.

Vertigo. Dizziness.

Vesication. The formation of vesicles; blistering.

Viscid. Glutinous, sticky.

Viscera. The entrails; the organs of the chest and abdomen.

Viscus. An organ, as the liver, stomach, &c.

Virus. Poison, contagion, foul matter.

Villous. Like velvet.

Vis vitæ. Vital force.

Vis medicatrix naturæ. The healing power of nature.

Whorls. Flowers and leaves are said to be in whorls when they are situated in circular order around the stem.

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